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October 29, 1973

RAILWAY AGE

FREIGHT TRAFFIC ISSUE

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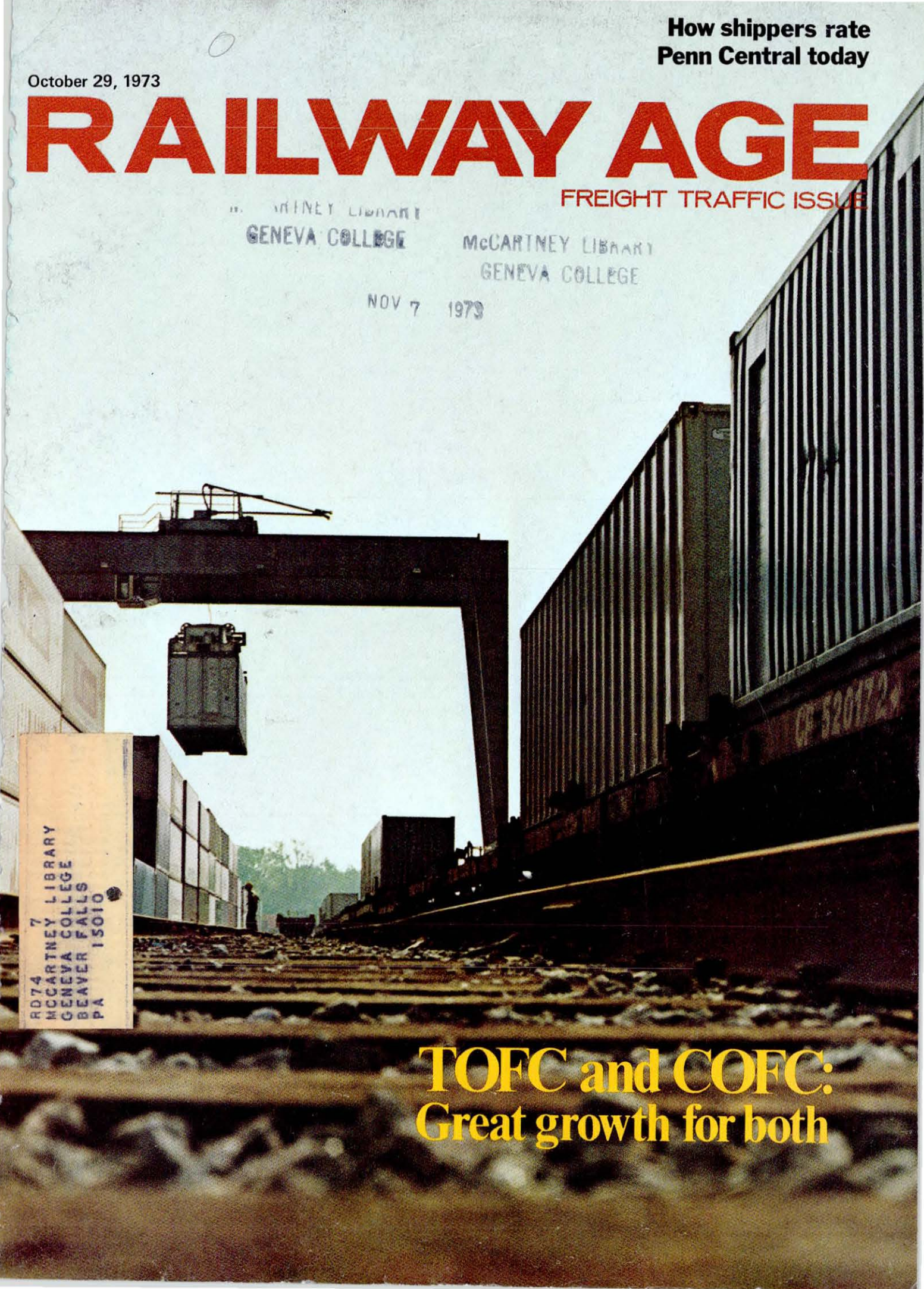

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Circle 1 on coupon page 69

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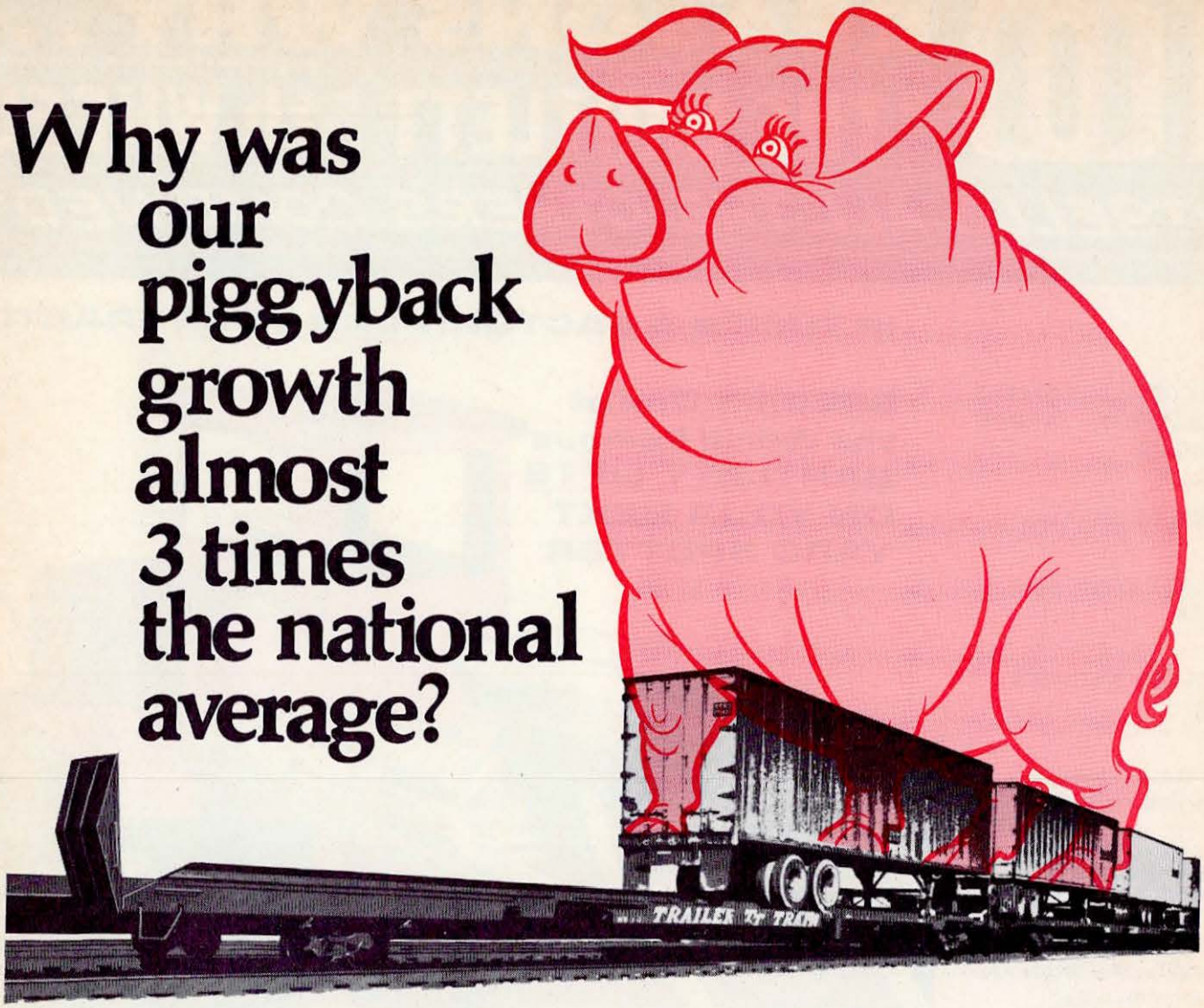

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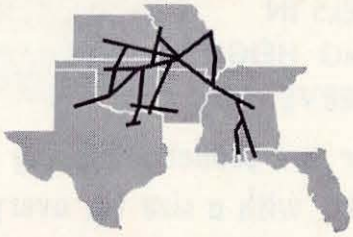

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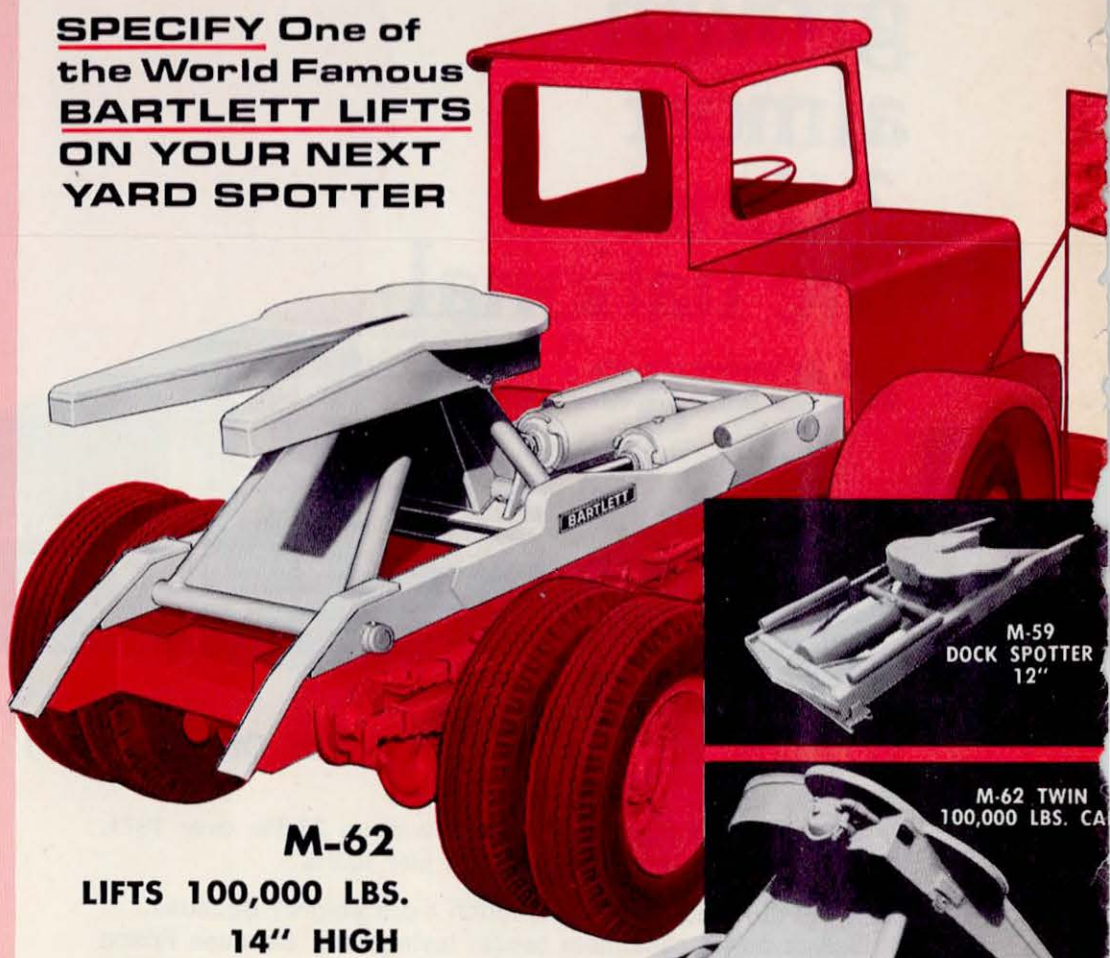

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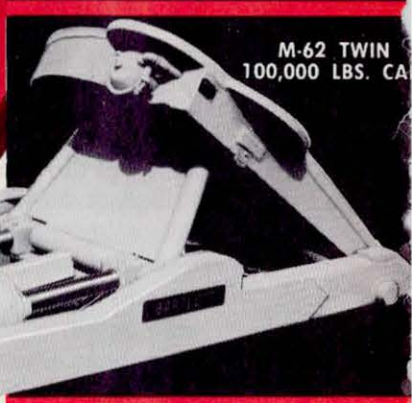

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October 29, 1973 • Vol. 174 No. 20

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Inside

LUTHER MILLER

UNTOLD CONTAINER STORY?

Whatever happened to containerization's bright future? C. Virgil Martin, who sees containerization as "the greatest thing to come along since dieselization and the jet engine," thinks he knows where the trouble lies. Martin, who is president of the Chicago Association of Commerce and Industry (and chairman of the finance committee of the mercantile firm of Carson, Pirie Scott & Co.) says proponents of containerized traffic have simply been hiding their light under a bushel.

"We need to explain what it all means, to the shipper and to the consumer," Martin told a Chicago containerization conference Oct. 16. "There's a need for an advertising campaign to explain this revolution in transportation. We've got to get the story across—about how containerization can get the product to market faster, with less damage and pilferage, and at less cost."

Among those in Martin's audience was Railway Age's Robert D. Bartley—and he found the remarks quoted above particularly interesting, having just finished researching and writing our own annual report on TOFC/COFC, with emphasis, this time around, on containers-on-flat-cars (p. 26).

There's no doubt that COFC traffic, especially in the U.S. has developed far more slowly than TOFC. But TOFC itself, as Bartley recalls, was very slow to set the industry on fire and become the furious pace-setter of traffic that it is today. (A search of our archives discloses that it was just 40 years ago that the Chicago North Shore & Milwaukee invited over-the-road motor carriers to ship loaded or empty trailers over the railroad between Chicago, Racine and Milwaukee. But it took two more decades for the concept really to catch on.)

Now, COFC is beginning to show signs of life. As Bartley puts it: "It appears that COFC is off and winging, and while it may have a long way to go before it achieves the superstar status of TOFC, nevertheless it is bringing all-important new business to the rails. Furthermore, COFC's potential for continuing to lure in more new business couldn't be better."

He agrees that it will be better still if Mr. Martin's advice is taken to heart.

BUDGET-PLANNING TIME

Observers of the railway marketplace who are looking for signs and portents are advised to turn to pp. 73-74 of this issue. For the first time in several years, we have had to expand our market-outlook section from one page to two. That's how busy the marketplace has been.

In view of the great activity registered in this year's first eight months—when 63,380 new freight cars were ordered, far more than in all of 1972—there were those who felt that the market was bound to go into a sharp decline by '74. But in recent weeks Missouri Pacific has unveiled a $75-million '74 program; Santa Fe came in with a $90-million budget; Union Pacific is on record with a $110-million program. Amtrak, meanwhile, has just placed orders for $64 million worth of passenger cars and locomotives, and will order 100 more cars in November.

Right now Senior Editor Gus Welty is heading up a staff survey designed to find out what industry-wide investment plans are likely to add up to next year. The results will be published in our budget-planning issue, Nov. 26.

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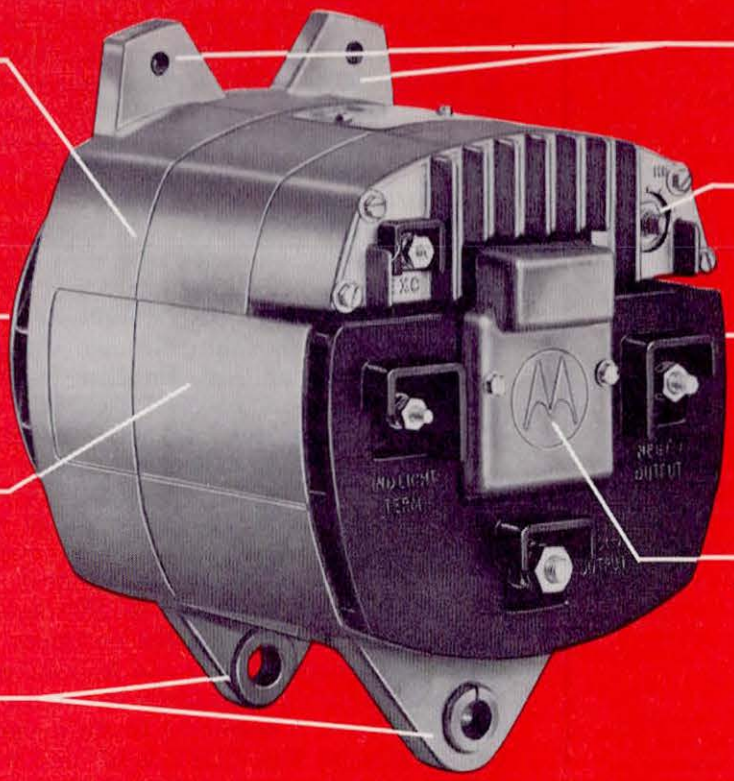
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Circle 5 on coupon page 69

RAILWAY AGE

OCTOBER 29, 1973

FEATURES

CP Rail container terminal with Transtainer lifting one of the growing number of boxes moving by rail was photographed by CP's Maurice Quinn.

TOFC and COFC:

Big new growth ahead for both . . . . . p. 26

Traffic Poll: How shippers rate Penn Central . . . . . p. 36

P-S box car is strong and versatile . . . . . p. 44

Southern's new dimension in automobile transport . . . . . p. 48

NEWS

UP to test catenary systems . . . . . p. 8

Ann Arbor: Midwestern bankruptcy . . . . . p. 8

FRA waives track standards on PC . . . . . p. 8

ICG looks back with satisfaction . . . . . p. 8

CN orders 300,000 concrete ties . . . . . p. 8

Out of disunity, unity for rail labor? . . . . . p. 8

REMSA looks for big show in '74 . . . . . p. 8

The fuel squeeze—and what it could mean . . . . . p. 10

RI marketing effort aims at aggregates . . . . . p. 17

Self-steering car truck is tested . . . . . p. 19

AAR's Harris describes $8-million research year . . . . . p. 58

Think small (tank cars, that is) . . . . . p. 67

Southern landfill gets environmental OK . . . . . p. 67

Third-quarter traffic sets a record . . . . . p. 67

Palletizing could raise rails' apple share . . . . . p. 67

Claim council is being organized . . . . . p. 67

Forwarder chooses SP site . . . . . p. 67

ICG stays on top of grain situation . . . . . p. 67

OPINION

INSIDE — Containers: Untold story? . . . . . p. 5

LINES ON LABOR — Productivity re-visited . . . . . p. 17

VIEWPOINT — The other side of the PC story . . . . . p. 78

WATCHING WASHINGTON — Taking the pressure off . . . . . p. 19

DEPARTMENTS

Advertising Sales Offices . . . . . p. 77

Carloadings . . . . . p. 73

Industrial Traffic . . . . . p. 56

Market Outlook . . . . . p. 73

New Products . . . . . p. 69

People in the News . . . . . p. 53

Piggyback Loadings . . . . . p. 73

Revenues and Expenses . . . . . p. 64

Suppliers . . . . . p. 56

Short and Significant

UP TO TEST CATENARY SYSTEMS

Union Pacific is installing two short sections of catenary, to run a couple of tests regarding the feasibility of "changing over a major portion of. . . mainline operations" from diesel-electric to electric motive power. One test section, to be built by the end of the year north of Salt Lake City, will be patterned on designs used in Europe. The other, scheduled for completion next spring west of Cheyenne, will use U.S.-designed materials. A main purpose of the tests will be to determine how well the two designs can withstand severe weather extremes. In addition, the test section near Salt Lake City will be energized so that UP can check on possible interference of high-voltage lines with signal and communications lines. Studies UP has made have looked toward electrification of main lines from North Platte, Neb., to Salt Lake City and and Pocatello, Ida.

ANN ARBOR: MIDWESTERN BANKRUPTCY

Rail bankruptcy spread into the Midwest as the 299-mile Ann Arbor, extending across Michigan's Lower Peninsula, filed for Section 77 reorganization. Its principal creditor is the affiliated Detroit, Toledo & Ironton. Ann Arbor has been seeking to abandon its money-losing Lake Michigan car ferries for over a year.

FRA WAIVES TRACK STANDARDS ON PC

A one-day shutdown of Penn Central lines with substandard track was enough to cause the Federal Railroad Administration to waive imposition of its Track Standards, effective Oct. 16, on 6,901 miles of PC so freight operations could be continued. FRA required an 8-mph maximum be imposed on involved lines, any passenger service be terminated, no hazardous materials be handled without FRA clearance, and minimum standards be complied with if any segment handles more than 100 million gross ton-miles of freight per year or has passenger trains on it.

ICG LOOKS BACK WITH SATISFACTION

As Illinois Central Gulf President Alan S. Boyd put it, "We believe ICG is the only surviving Class 1 railroad merged in the past five years which has reported an increase in pre-tax net income for the first full year following merger." In 1973, Boyd told financial analysts in New York, the railroad should gross about $500 million "and we should earn more than the $24 million of pre-tax income reported in 1972." Revenues (on a pooled basis) are up by more than 10% for the first three quarters and while much of the added volume can be attributed to the general health of the economy, "these increases are also a fine tribute to the planning of our merger team. . ."

REMSA LOOKS FOR A BIG SHOW IN '74

Based on the number of early inquiries being received, the Railway Engineering-Maintenance Suppliers Association is forecasting a most-successful-yet exhibit for 1974. The show will held Sept. 30-Oct. 3 at the International Amphitheatre in Chicago, running concurrent with annual meetings of the Roadmasters and Bridge & Building Associations scheduled for the Palmer House.

OUT OF DISUNITY, UNITY?

What rail labor has put asunder may yet be put back together by rail labor. In other words, the Railway Labor Executives' Association and the Congress of Railway Unions are on the way to getting unified, with study committees now appointed by RLEA Chairman C.L. Chamberlain and CRU Chairman Al H. Chesser. As matters now stand, RLEA has more unions—but CRU, formed in late 1969, has the big unions, including the United Transportation Union, the Brotherhood of Railway and Airline Clerks and the Brotherhood of Maintenance of Way Employes.

CN ORDERS 300,000 CONCRETE TIES

Canadian National has placed an order with Francon of Montreal for 300,000 concrete ties. Most will be used in a 45-mile double-tracking of CN's main line between Winnipeg and Portage la Prairie. Others will be used in new main-line construction east of Quebec City. CN Chief Engineer R.L. Gray said the decision to install concrete ties resulted from rising world timber prices. He added that CN will continue to order timber ties "so long as the price remains competitive." He said CN has also explored the potential of laminated wooden ties, the main question now being whether these could be produced as economically as timber or concrete ties.

SPCC, WU TO EXCHANGE LEASES

Southern Pacific Communications Co. and Western Union have worked out an agreement involving an exchange of leases of communications satellite and microwave transmisssion facilities. SPCC will use WU's Westar domestic satellite system (scheduled for launch next April) to extend coverage of its specialized communications services from the West Coast and Texas to New York, Chicago and St. Louis. Western Union will use SPCC's microwave system (now under construction) for communications traffic to major southwestern cities.

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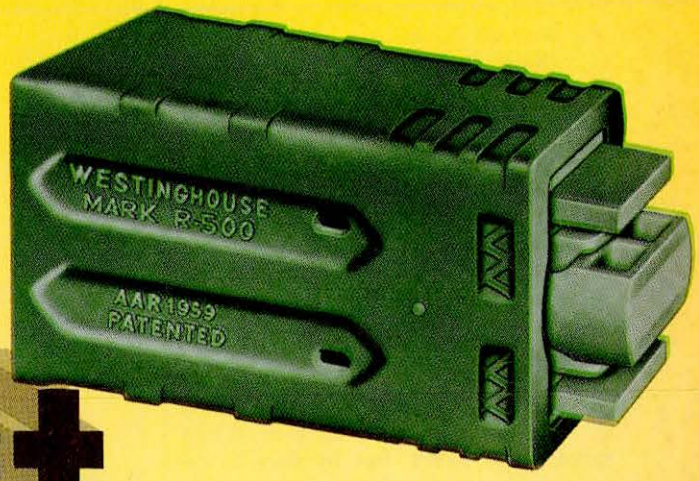

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Circle 6 on coupon page 69

RPI RAILWAY PROGRESS INSTITUTE

The fuel squeeze–and what it could mean

Eight, 10, 12 months ago, railroads had one fuel problem: Getting it. Now, there are two: Getting it—and paying for it. Even Richard III may never have seen a "winter of. . .discontent" like that into which the industry is headed. The facts are these:

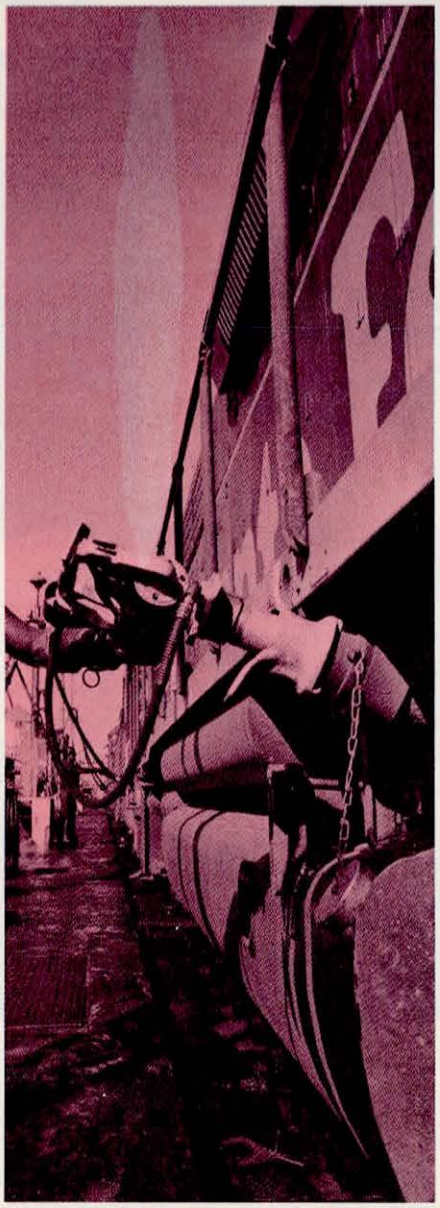
—Diesel fuel supply, which ranged from tight to downright-awful last winter, will almost inevitably be in that range again. Allocation of available fuel may help, if the standards set recognize the importance of keeping the No. 1 vehicle for freight transportation, the train, moving. But, a hard winter will boost demand for fuel for heating, and that's a demand that will never be left unmet.

—Diesel-fuel prices since Jan. 1 have gone skyward. On an index in which 1967=100, fuel as of July 1, 1972, stood at 117.5. On Jan. 1 of this year, it had eased up to 119.9. But by July 1, the index had soared to 138.7, and the Oct. 1 figure, when it becomes available, will show a further jump. And, at the same time that prices are climbing, so is railroad diesel-fuel consumption.

● **What it means.** There are a number of ways to look at the situation. One is that fuel-cost increases alone could virtually wreck any hope for net-income improvement this year or next (and, of course, fuel-cost increases are not "alone," because there have also been sharp increases in labor costs and in the costs of other materials). Another is that further rate increases—and sizable ones this time—must come. A third is that pressures will continue to grow for savings on the labor side. A fourth is that—absent rate boosts and/or labor savings—cost pressures coupled with fuel shortages may cause service cutbacks at, perhaps, the worst possible time. A fifth is that the 1972-73-74 bind may cause more than a few railroad managements to put an even higher priority on electrification studies (even though it's by no means sure that the cost of electric power will not also eventually head for the sky).

Or, as one cynic dourly observed, "Between wage increases and price increases, maybe we'd be better off if we could find some way to operate a railroad without running trains."

In 1971, railroad fuel consumption was about 91 million barrels, and the over-all fuel costs was $447 million. Last year, consumption went up and so



did cost, to $469 million. This year, consumption is estimated at 104 million barrels, an increase of approximately 14% from 1971 levels. If there had been no price increases, increased consumption would boost the fuel bill this year to about $510 million. With price increases added on, the fuel cost could be in the neighborhood of $650 million, probably more.

As it happens, too, increases have been hitting hardest at those least able to take the hit. Fuel costs, January-July 1973, have gone up by 19% in the Eastern District, by 15% in Western District and by 13% in the Southern District. As of July 1, the fuel index stood at 138.7 nationally, with the East at 143.8, the West at 138.7 and the South at 129.9.

● **Spelling out the problem.** Consider one very specific and very critical situation—the situation facing Penn Central, a road which accounts for better than 10% of the industry's ton-mile total and a road which nobody needs to be told can't really afford to pay today's prices, let alone tomorrow's. Last year, on about 445 million gallons of diesel fuel, PC paid an average price of 11.6 cents per gallon. The average this year is estimated at 13.1 cents. The projection for 1974 is 19.5 cents. What the figures seem to indicate is that Penn Central faces a fuel bill in '74 which will top the 1973 bill by about $30 million.

Penn Central is by no means alone, as a swing around the country clearly shows.

One major western road paid an average of 10.09 cents per gallon in 1972. This year, its estimate is an average of 13.65 cents. Another big fuel consumer in the West averaged slightly less than 10.5 cents per gallon last year. For 1973, it figures on an average of 13.5 cents. And its projection for 1974? 16.5 cents per gallon.

A medium-size road in western territory shows an increase of more than 40%, from an average 10.1 cents per gallon last year to 14.6 cents this year. And another larger carrier has seen costs go from 10.4 cents in 1972 to almost 16 cents.

East of the Mississippi, things aren't much different. For one major road, last year's average price was 11.15 cents. Through nine months of 1973, the average has gone up to 13.12 cents, with a projected average for the full year of 13.43 cents. The spread now, however, ranges from 12 to 19 cents, depending mostly on method of delivery and length of haul. And the projection for next year pegs the likely average at well over 15 cents per gallon.

Another road got through last year at a 10.88-cent average. The estimate for 1973 is 15 cents. The projection for next year is anywhere from 17 to 20 cents. As the chief purchasing officer gloomily observes, "It's in the lap of the gods." Still in the eastern half of the country, there's a major fuel user that

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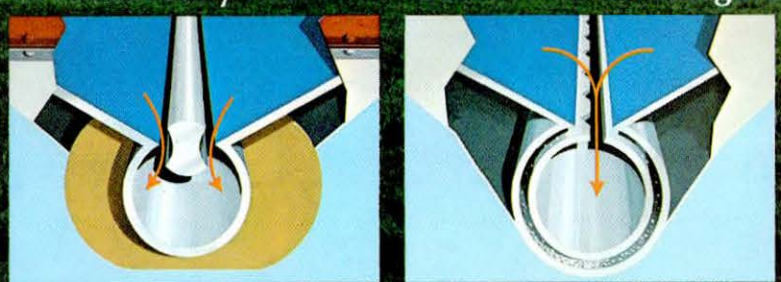

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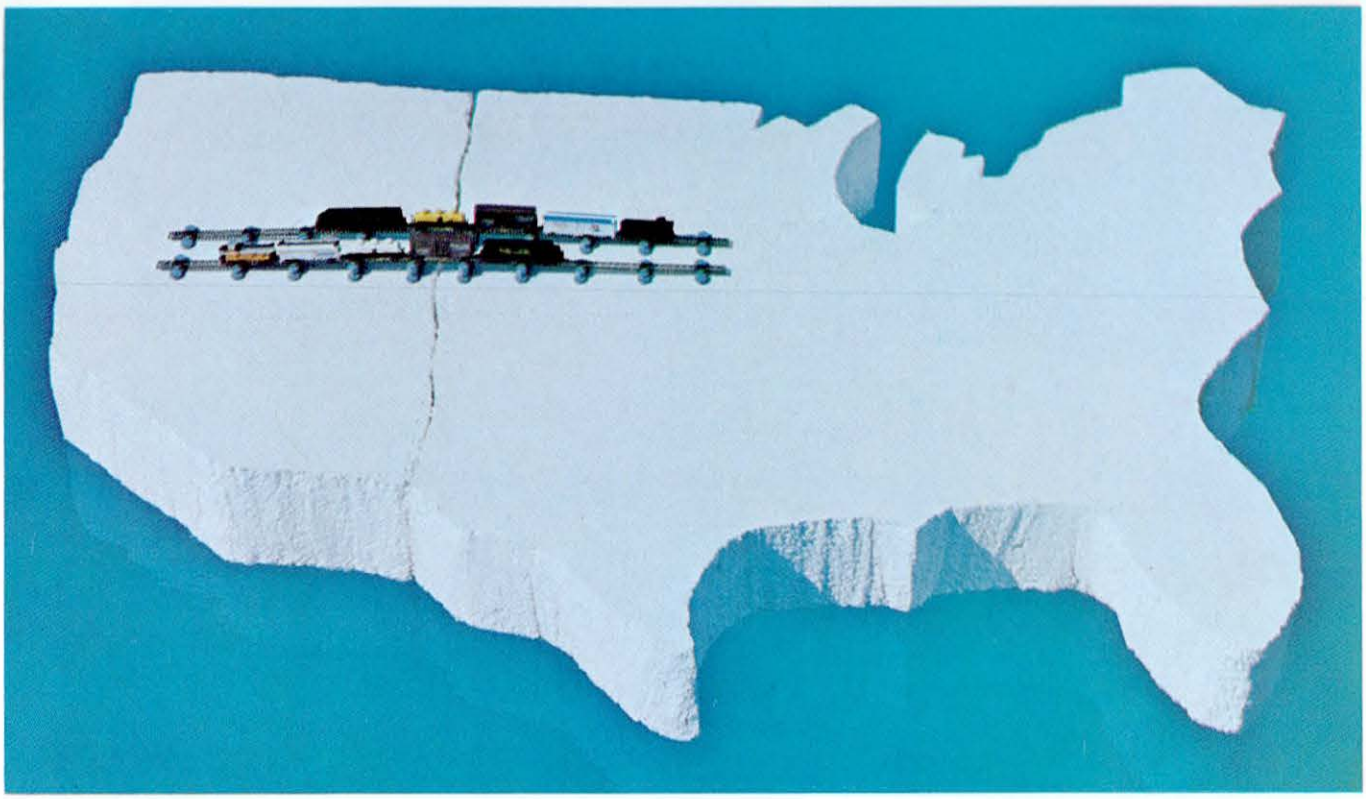

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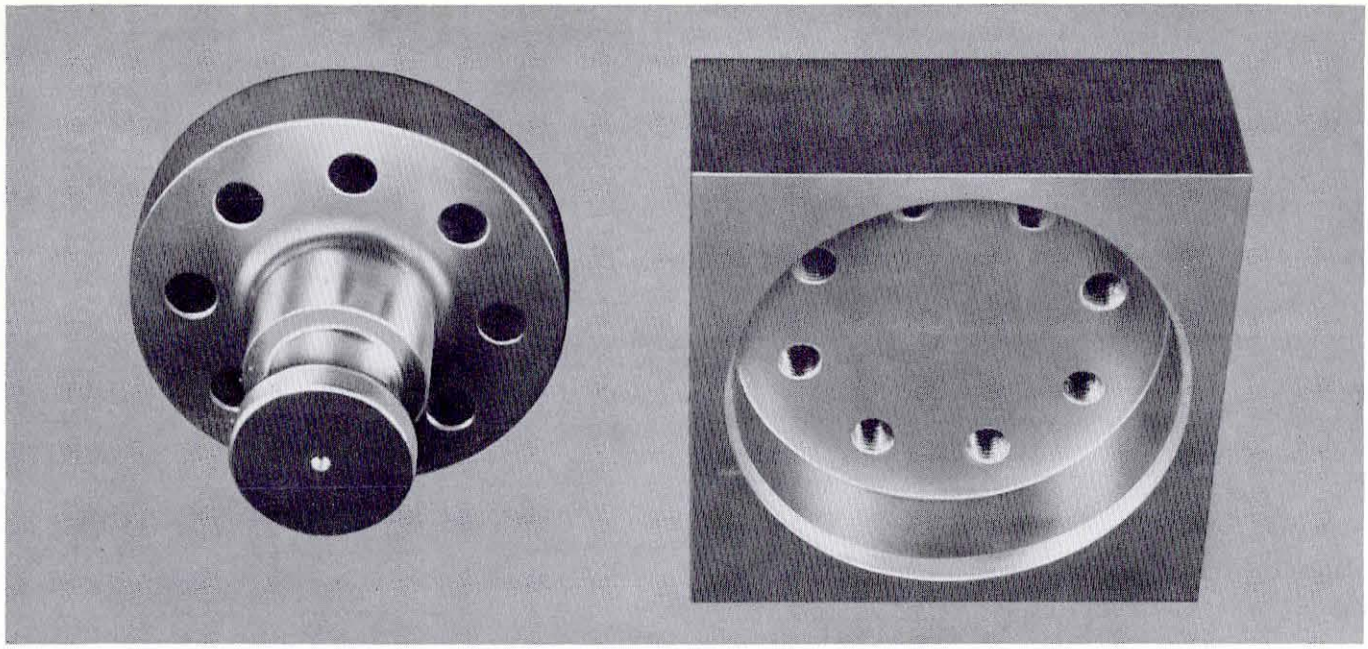
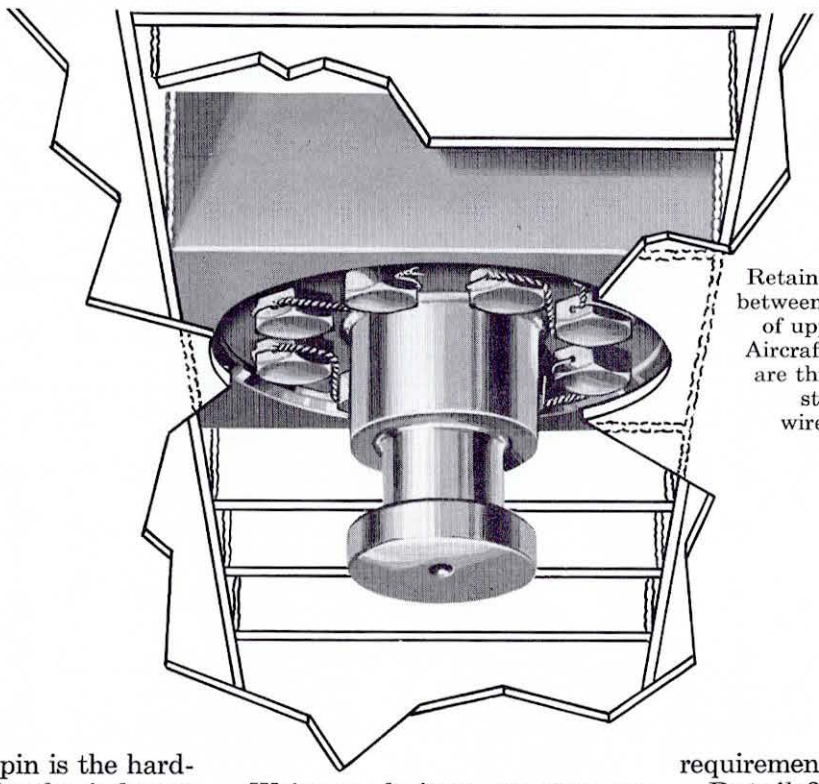


Fruehauf forged steel removable kingpin (left) and retainer (right).

Fruehauf introduces the removable kingpin



Retainer is welded between web plates of upper coupler. Aircraft-type bolts are threaded with stainless steel wire to prevent loosening.

The Fruehauf kingpin is the hardest and toughest in the industry (380-420 Brinell hardness rating, 180,000 lbs. per sq. in. tensile strength). But piggyback service can make even a Fruehauf kingpin show wear in time.

We've made it so one man can replace the worn kingpin with a new kingpin from the outside of the trailer in about 20 minutes.

Complete with safety feature.

It meets or exceeds all AAR test requirements.

Details? Call any branch or write Fruehauf Division, Fruehauf Corporation, 10942 Harper Ave., Detroit, Michigan 48232.

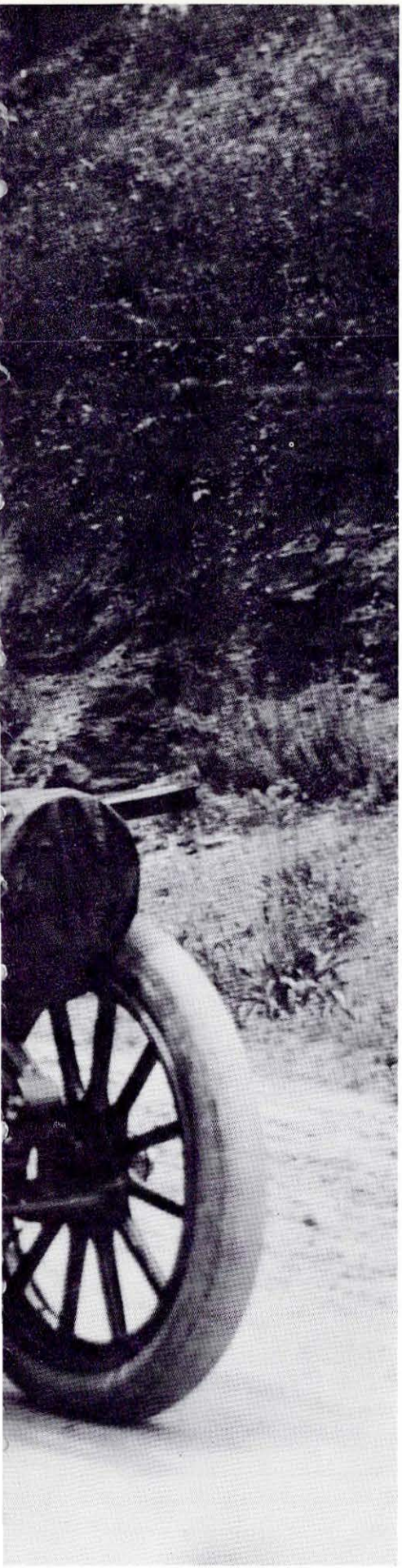
Fruehauf — the Total Transportation people.

TOTAL TRANSPORTATION

You're way ahead with Fruehauf behind you.

Circle 4 on coupon page 69

A limited number of reprints, suitable for framing, are available by writing to Boeing Vertol Company.



These trail blazers' daughters will groan at the thought of a drive downtown?

For commuters, rail transit will be the coming thing?

You're pulling my leg!

When these four women drove from New York to San Francisco—first of their sex to make it—everything looked like smoother and smoother going for the automobile. For a long time, it was.

Better roads, cars, tires and fuel evolved rapidly. Cars climbed Pike's Peak, survived Death Valley, hit 90 on Daytona Beach.

Was there anything the auto couldn't do?

Yes. It couldn't go downtown in numbers anything like the number of people who wanted to drive there. Streets weren't wide enough, parking lots weren't big enough.

So a third of the city was bulldozed into car-choked streets and parking lots. A third was claimed by filling stations, salesrooms and other facilities of the auto. "Smog" entered the language.

With this, the auto started turning from the American dream into something more like a four-wheeled nightmare.

Outraged San Franciscans stopped a downtown expressway in midair. Boston passed a law against any further highway construction. Dade County officials protested they would need the protection of the National Guard to build another highway into Miami. People in 28 urban areas are studying ways to limit auto use.

Just when things are looking bad for the auto, what should come gliding in on shiny steel tracks to get the auto out of its metropolitan mess but modern rail transit!

Rail transit is an auto's best friend

Pioneer systems have been around so long that many people think of rail transit only in terms of old, dated equipment. But there are new systems in Mexico City, Montreal and San Francisco. Other cities are planning new systems and expanding existing lines. Modernized light rail systems are in the works in Boston and San Francisco.

And now it's becoming clear to all of us that rail transit can do what autos cannot. It can bore into the heart of the city with immense numbers of commuters—without an impossible number of cars to be parked, or clouds of poisonous exhaust to be breathed.

America needs the best of both worlds—the auto—and rail transit.

Surface Transportation Systems
BOEING VERTOL COMPANY
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Circle 50 on coupon page 69

350,000 TRACK MILES...

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Special bonus: This year's ATLAS contains two new additions: full/page Amtrak Routes and double page Canada map in 2-colors.

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paid an average of 11.4 cents per gallon in '72—with a boost to an average 12.6 cents thus far in '73 and an actual current price of 14 cents. And yet another major carrier that checked in last year at an average 11.26 cents, estimates the 1973 average at 14.5 cents—and figures next year will see fuel-price averages anywhere between 17 and 22 cents.

And how about fuel purchased offshore? If you talk about that, talk in terms of 28, 29, 30 cents per gallon.

● **And then there's supply...** Fortunately, perhaps, the fuel-supply situation—right now—is not as critical as the price situation is coming to be. There are roads that say supply is tight. But for most, the range is from "spot shortages of no great consequence" to "a very unstable picture."

This, however, is a report that comes at a time when the home-heating demand poses no problem. It also comes at a time when forecasters, scientific and otherwise , are worrying about an old-fashioned winter.

The irony, if there is one, is that the whole thing—soaring prices and the shortage problem—could not come at a worse time. Two years ago, railroad freight traffic added up to something under 740 billion ton-miles. This year, the figure will be more like 845 billion ton-miles.

And as October dragged along—as snow began falling in the mountains in the West—it was by no means clear what precise form fuel allocations might take. Through the summer, the Administration had been championing a fuel-distribution program involving voluntary compliance with Federal guidelines. Early in October, however, the Administration switched positions. A mandatory-allocation plan covering propane became effective almost immediately, and later in the month other standards were set, to become effective Nov. 1. Essentially, this program—covering home-heating oil, diesel fuel and jet fuel, among other distillates—provides that suppliers distribute the product to customers in proportion to the purchases they made in 1972. Ten percent of supplies would be set aside for distribution by states to "hardship" cases. But, the Administration regulations stop short of proposing any kind of priority system among uses or customers. Thus, railroads will still face a serious situation, with fuel consumption already up from 1972 levels and with further increases in traffic projected for 1974.

● **Going farther?** While the Administration was acting, though, so was Congress, and what Congress had in mind appeared to be something more far-reaching. One measure had already been voted on by the Senate by early October, and by mid-month a House bill had been cleared for floor action. In contrast to the limited Administration program, Congressional proposals contemplated mandatory allocation of both crude oil and other petroleum products including gasoline. Thus far, Administration spokesmen have contended that crude-oil allocation proposals should be rejected and that it's too early to get into the matter of gasoline allocations.

At the same time, however, the Administration has conceded that there will indeed be shortages of fuel this winter. One point being stressed: Even the mandatory allocations can't increase the actual supply of product available, and thus about the best the program can do is to try to provide for equitable distribution.

Faced with this cost/supply squeeze, railroads now—as in the earlier crunch-period—are limited in the moves they can make. Among them: Increasing utilization of equipment so that transportation needs can be met with use of fewer units; operation of optimum (which often means slower) speeds; cutting down on idling of locomotives; precise matching of motive power to train to ensure most efficient use of power; installation of new metering equipment and institution of closer equipment/employee supervision to prevent spillage in fueling operations; cutting back on service.

None of these alternatives is all that easily accomplished. Some of them may produce only limited fuel savings. The last one—cutting back on service—is rather clearly a last resort, and a pretty-nearly-unacceptable one at that, in a period when demand for rail transportation service has been growing.

● **Priorities needed.** AAR President Stephen Ailes has put it bluntly: "From the standpoint of the railroads, there is not now enough diesel fuel available from domestic sources to meet our energy requirements. Should it develop that railroads cannot secure sufficient diesel fuel to meet their full needs, then some services could not be performed. The impact...would be felt all across the economy because, as a practical matter, rationing of transportation would not be feasible."

The railroad's position, Ailes notes, is that production of distillates should be increased at the expense of the production of gasoline: "There is no joy-riding on diesel fuel. Diesel fuel produces transportation of essential goods and materials and failure to have enough of it will close down industries, deprive the country of food and material and cause widespread unemployment."

Railroads share some of the Administration's reservations regarding mandatory controls and their impact on the supply/distribution system. But, says Ailes, "It may well be that the country has no choice. Essential uses must be favored over non-essential ones."

C&S/EDP marketing opportunity

The consecutive conventions of the Communications and Signaling Section, and the Data Processing Division of the Association of American Railroads closed in New York earlier this month.

Railroad registrants totaled 361 for the C&S meetings; 241 railroad men signed in for the Data Processing sessions. The total was something under the combined figure of 602 because some railroad men attended both association activities.

A record number of suppliers exhibited this year! Sixty different companies took a total of 89 booths, and a surprising fact is that 20 of the 60 exhibitors were new; that is, they had not exhibited at the same show in Chicago the year before. Looks like a lot of gung-ho suppliers see a market in the railroads and the rapid transit fields. We do!

In fact we have made a decision to combine the November and December issues of RAILWAY SYSTEM CONTROLS into one big CONVENTION REPORT ISSUE. We will extend advertising closing dates until November 9, and mail the combined issue so as to reach railroad men about the first week of December.

Why a convention report issue anyway? Because even though some 600 railroad men were at the convention, RAILWAY SYSTEM CONTROLS goes directly to over 3,000 paid industry subscribers (and is passed along to many hundreds more) including those that were at the show and, importantly, those industry influences who could not be at the show. It will take convention highlights to the whole C&S and Data Processing fraternity.

If you want more information about our important combined November/December post convention issue, contact our local representative or call one of our ad representatives listed on page 77.

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A Railway Age Group Publication
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From now on, we will remanufacture any AAR-approved freight-car journal roller bearing. From any manufacturer. That's news.

And we're using a new, modernized assembly-line process and a special quality audit system to make sure we get the job done fast and efficiently.

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More news: We publish what we're going to charge you when we recondition your bearings. And this flat rate includes parts and labor. So you'll know from the start exactly what you're going to pay.

There's a lot more that's new in our remanufacturing program. All of it is our response to what you want.

Your Timken Company sales engineer is ready to fill you in.

The Timken Company, Canton, Ohio 44706.

The company that tapered the bearing can taper your bearing costs.

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REGISTERED TRADEMARK
TAPERED ROLLER BEARINGS

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Train Action: what you don't know can hurt you.

We're helping tame the tremendous forces of uncontrolled train action with a proven control system. It's accomplished without sacrificing the cushioning performance required to help protect cars and lading, too.

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THE PROVEN PERFORMANCE PEOPLE... IN RESEARCH AND RESULTS.

Marketing effort aims at aggregates

They're putting the "rock" back into Rock Island—with a marketing concept which, hopefully, will produce increases in movement of aggregates on a profitable basis. RI is now running mini-unit trains, manned by three-man crews, between a rock quarry and a batch plant 93 miles apart in Oklahoma, and thus far the operation is working well. Rock Island likes the results and so does its customer.

In the past, what traffic RI moved on this route—and it wasn't much—got four separate rail moves and two yardings, and rock cars commonly required two weeks for a roundtrip. Now, the mini-unit train—locomotive, caboose and 15 air-activated, side-dump cars normally used for m/w service—makes its roundtrip in about 10 hours, and the train can make the run twice daily.

Operating brotherhoods cooperated, recognizing that this new business could only be generated (and new jobs created) with a streamlined operation and with rate reductions made possible in part through use of a three-man crew. Tests were conducted, and the results led RI to establish regular daily service in accordance with customer needs. Meanwhile, RI is studying application of the concept for several other aggregate users in Oklahoma City who get their rock from the same quarry. And, RI market research people are looking broadly at other potential locations where use of mini-unit trains might make sense.

As Vice President-Traffic A.F. Hatcher notes, "This kind of train can be a money-maker. There's a lot of business out there which such a service should attract." He has a point: The total volume of aggregates transported in the United States is about three times the volume of coal transported—but, while railroads have been aggressive in going after the coal business, they're moving only about 6% of aggregates traffic. Now that could change.

In the Oklahoma operation, a crew takes the empty train out of El Reno to the quarry, returns it loaded to El Reno, and another crew takes over there for the run to the unloading point and back to El Reno. No yard handling is required at either El Reno or Oklahoma City.

As RI notes, the concept envisions trains operating virtually in shuttle service "on virtually an around-the-clock schedule, eliminating idle-car-hours, maximizing car utilization and bypassing yards, thus producing a profit on what traditionally has been a commodity of questionable value to the railroad."

Lines on Labor

GUS WELTY

PRODUCTIVITY RE-VISITED

Readers of The Wall Street Journal for Oct. 16 may have been just a bit surprised when they came to the full-page advertisement picturing and quoting United Steelworkers President I.W. Abel—with the familiar USS symbol of United States Steel Corp. at the bottom. And what is Abel saying? Things like these: "I call upon every American to enlist in the crucial battle to improve our lagging productivity. Nothing less is at stake than our jobs, the prices we pay, the very quality of our lives. . . .Let me be blunt: I believe we are standing at a pivotal point in our history. If we adopt a don't-give-a-damn attitude, we risk becoming a second-class economic power. How can we improve? In these ways: By stepping up the efficiency of each worker. . . .By improving our technology and really using the technology we already possess."

USS AND USW: WHAT'S IT ALL ABOUT?

This ad was the opening shot in a U.S. Steel campaign which Chairman Edgar B. Speer says is "designed to increase productivity at all levels and to carry the message to all of our employees, customers and the American public in general." The pairing of corporation and union president could not have been more appropriate, because in steel as perhaps nowhere else as yet, there has come to be a management/labor recognition that "We really are all in this together."

Listen again to I.W. Abel on stepping up worker-efficiency: "Does this mean work speedups, job eliminations? Hardly. It does mean cutting down on excessive absenteeism, tardiness, turnover and overtime. It does mean improving the morale of workers, more effective work incentives—and really listening to the man at the workbench. I've always believed that all the brains in the great American economy weren't in the executive suite." And on technology: "Let's put our brainpower to work to create more efficient manufacturing processes and better equipment. But then let's use them. Important steps are being taken to help solve the problem. For example, the steel industry and the United Steelworkers of America have established joint advisory committees on productivity at each plant. This cooperative venture is a recognition that workers and employers share a common problem."

AND WHAT'S PRODUCITIVTY ALL ABOUT?

A major editorial effort in Railway Age this year has gone under the continuing theme "Profit Through Productivity—profit in a total environment, including better service, corporate benefit, job improvements, creation of an all-around better transportation service for the nation. Implicit in all of this has been the thought that the railroad industry—any industry—can only do as much as all the people working in it want it to do and will let it do. And there has been a recognition that both rail management and rail labor deserve a heap of credit for the effort they're making toward improving productivity. Much remains to be done, sure. But much has been done. I.W. Abel sums it up well: "Like Oliver Twist, labor has always sought 'more'—more wages and benefits. But labor also knows that to obtain more, we must produce more." Nobody really needs to add anything to that.

Let Sloan upgrade your downgrade operations

HOW? With its new three-position retaining valve—your assurance of positive braking performance when descending grades. Sloan's Retaining Valve, the first to receive AAR approval, has a basic practical design of ingenious simplicity. Its body and cover-handle are made of brass castings, while internally the only parts subject to wear are three "O" rings which are quickly and easily replaced.

The handle of Sloan's Retaining Valve operates through three positive detention positions for "sure" selection of the setting desired.

Thousands are already in service on Class I Railroads—let us tell you more.

Sloan supplies to the Railroads four AAR APPROVED products associated with the air brake systems of railroad freight cars:

BRAKE CYLINDER RELEASE VALVES With right or left hand bracket portion

ANGLE COCKS Ball type

SLACK ADJUSTERS Automatic, double acting, 19" travel

RETAINING VALVES Three position

Each of these products incorporates the same quality and engineering expertise that Sloan has employed for more than sixty years in the manufacture of its world famous flush valves.

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SLOAN VALVE COMPANY
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National Sales Representative:
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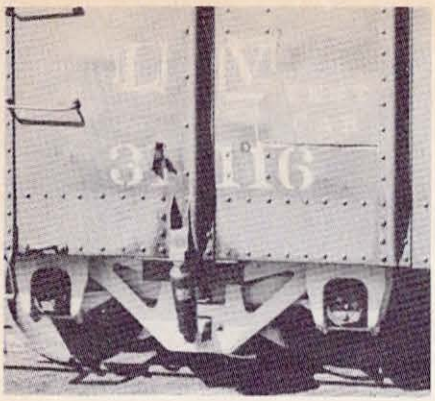

Self-steering truck is being tested

What technical development could ever bring together the far-flung Canadian National, bankrupt Lehigh Valley, and plant-switching Philadelphia, Bethlehem & New England? All have been actively interested in a self-steering freight-car truck, the result of years of work by Harold List, a mechanical engineer who is now a partner in Railway Engineering Associates. The goal has been elimination of flange contact, and consequently wheel wear, on most normal main-line curvature.

A pair of these articulated car trucks have been installed under an aging Lehigh Valley gondola which was initially operated for months on the sharp curves of PB&NE which snakes through the vast Bethlehem Steel plant at Bethlehem, Pa. Several trips have been made on LV's main line, demonstrating operating characteristics at speeds far higher than possible in switching service. Canadian National has made a computer study of the truck and liked what it saw. Recently List's patent claims have been allowed.

The traditional American car truck is composed of three basic parts—bolster and two side frames. The List/REA truck has four: Two side frames and two steering arms. While the standard truck supports a carbody at the center plate, the articulated truck provides its support from the side frames through spherical elastomers to the side sills. Lord Corp. has cooperated in the development by supplying various elastomeric parts; Railroad Dynamics supplied MDA hydraulic dampers.

The two steering arms are connected by elastomers near their centers to produce the axle steering effect. In addition to its self-steering qualities, the articulated truck is said to have freedom from lateral instability at high speeds and to significantly lower flange forces on sharp curves. In addition to its freight applications, the truck has been studied for passenger-car and rapid-transit applications.

Watching Washington

R.M.M. McCONNELL

TAKING THE PRESSURE OFF

U.S. District Court Judge John P. Fullam's conclusion that available cash would allow the Penn Central to keep operating for at least a few more weeks not only postponed a creditor-sought shutdown of the giant road; it also gave Congress a little more time to hammer out details of legislation designed to maintain rail service in the Northeast.

Under Secretary of Transportation John W. Barnum showed up in Fullam's courtroom Oct. 12 to say that the Nixon Administration had agreed to compromise on several important provisions of pending rail legislation. Repeating assurances made a few days earlier by Transportation Secretary Claude S. Brinegar, Barnum said that the Administration would compromise on providing loan guarantees for modernization of facilities; helping state governments with subsidies for unprofitable local lines; and helping provide compensation for displaced railroad workers (though details of the labor protection agreement, which could cost in the neighborhood of $200 million, remain to be worked out).

MANDATORY VS VOLUNTARY TAKEOVER

All of this left one last problem that could still lead to a Presidential veto of the Congressional package: how to transfer properties from existing railroads to their successors. The Shoup-Adams bill—basic legislation of the Congressional program for the Northeast rail problem—requires bankrupt roads to turn over properties to a new Northeast rail corporation. Supporters of the Shoup-Adams viewpoint believe this is essential and that unless the property transfer is mandated, court challenges could slow the whole reorganization process. But the Administration believes that the mandating procedure would amount to a condemnation, moving prices higher then they would be at an auction. Even more serious, Brinegar has said, is the possibility that the mandate route might bring large-scale use of Federal dollars or government-guaranteed bonds to pay off the existing railroads. This, Brinegar told Congress, would lead to a phony nationalization that would have the public pick up the tab for the new rail system, but wind up not owning it.

So far, the spirit of compromise has led to at least one Congressional effort at resolving this conflict by leaving the question of mandating railroad property up to the courts. The effort died, largely due to the chilly reception given it by the Department of Transportation. What comes next? Supporters feel that the time is right to tough it out with DOT. They point out that Congressional support is growing for the basic Shoup-Adams approach; that public opinion is growing to favor a quick solution to the Northeast rail crisis; and that a blow to the Shoup-Adams bill would be a blow to all hopes for a fast rescue for Northeast rail service.

Given all this, Shoup-Adams backers think DOT may back down when it sees that the bill has widespread Congressional support. And if DOT doesn't back down, and the bill goes to President Nixon's desk with DOT's objections following close behind, the bill's backers believe that faced with Shoup-Adams, outright nationalization, or a rail system collapse, the President will grit his teeth and take Shoup-Adams.

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Now "K" Line completes its network with service on the Japan-Atlantic route, featuring the route's largest, fastest containership: M.S. Verrazano Bridge.

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"K" Line ships your cargo in cost-cutting 40-foot containers, each placed on an individual chassis. We pioneered the use of these containers some years ago and now use 12 types of them that satisfy every shipping need. The shipping world always develops new needs. "K" Line always steps up to meet the challenge.

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In Long Beach, Tokyo, Osaka and Yokohama, "K" Line operates its own huge container terminals. Benefits to you: careful handling, safety, convenience. Sophisticated computers control container movement, loading and unloading, processing, and coordination. Gantry and straddle cranes process up to 40 per cent faster than conventional types.

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Then we tell you we're a truck line.

We have a 17,000-mile truck system with 42 terminals in Midwest and Northwest cities. BNT is dedicated to continually updating equipment and facilities to serve you better.

Now. Would you believe an air freight forwarder?

Take a look at the map. There are 20 blue planes. Each one represents a terminal from which you can ship by Burlington Northern Air Freight. Call the number of the city closest to you and your shipment can go to any of more than 200 U.S. airport-cities or virtually any point in the free world.

Our prices are competitive. Our service is more than competitive.

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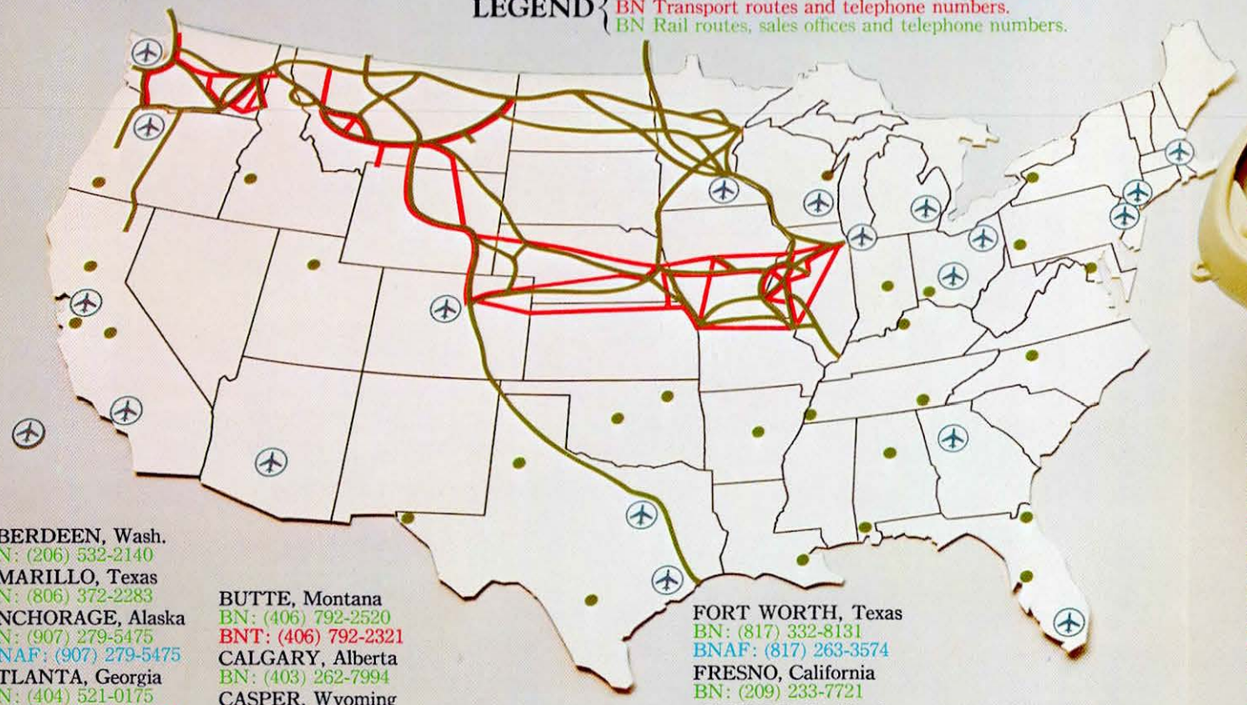

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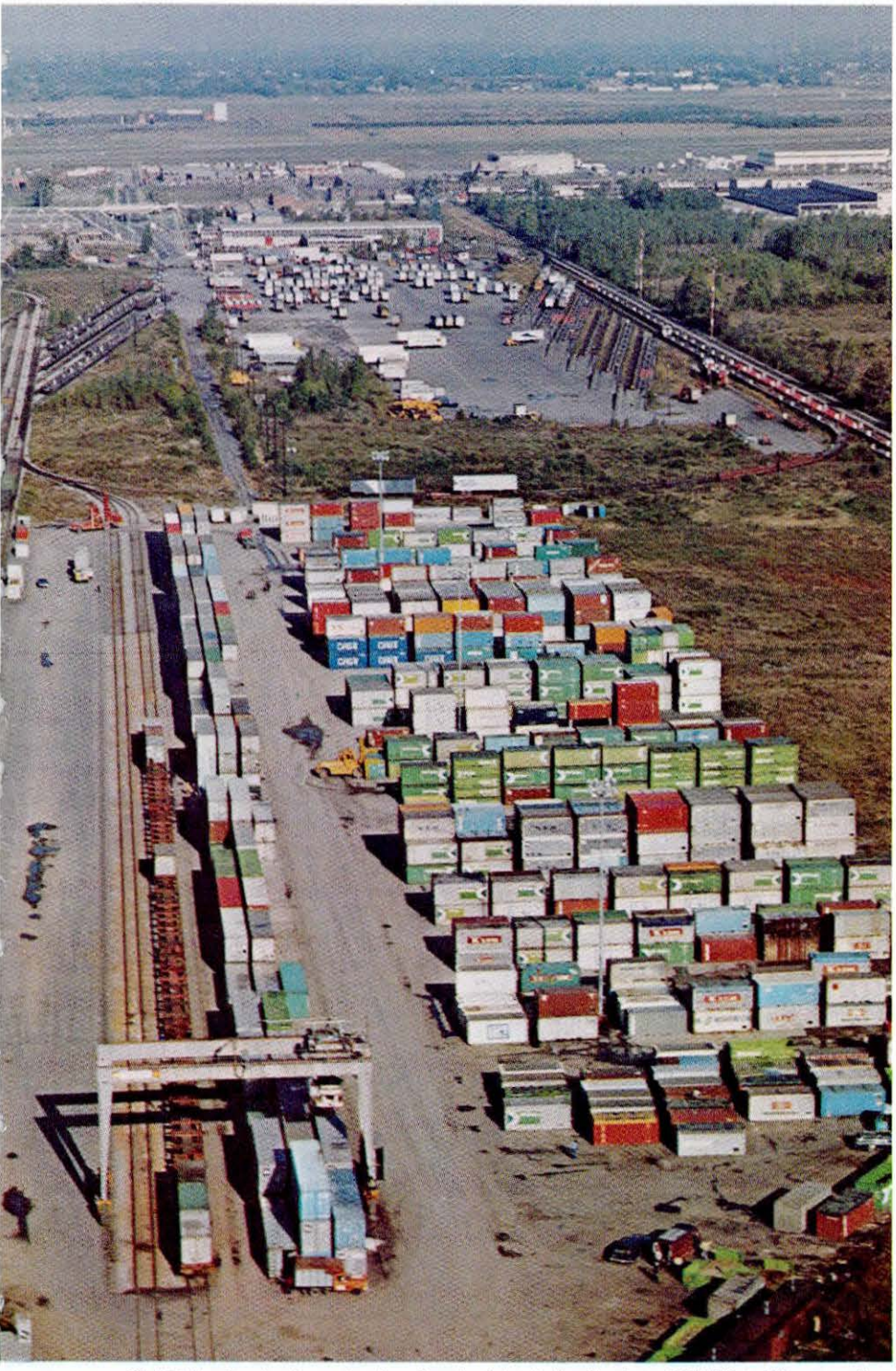
TOFC and COFC: There's big

CANADIAN NATIONAL has inland container facilities at points such as Toronto and port installations at Montreal and Halifax. Solid container trains on daily schedules connect these major terminals.

new growth ahead for both



CP RAIL piggyback service handles the inland distribution of COFC traffic, as well as TOFC. These operations are carried on side-by-side in CP's suburban Montreal terminal. CP expects to handle 111,000 container movements during 1973.

By ROBERT D. BARTLEY,
Associate Editor

Like TOFC, which made numerous abortive attempts at lift-off before it really caught on in the mid-50s, the COFC portion of piggyback traffic has had its fair share of problems over the years in getting off the ground. It appears now, though, that COFC is off and winging, and while it may have a long way to go before it achieves the superstar status of TOFC, nevertheless it is beinging all-important new business to the rails. Furthermore, COFC's potential for continuing to lure in more new business couldn't be better.

Together, trailer-on-flat-car and container-on-flat-car are establishing themselves as today's dynamic duo of railroad freight traffic. Look north, east, south or west, and the U.S. piggyback story reads the same: Up—way up—this year, and again up—although perhaps not as dramatically in 1974.

In Canada, piggyback is making a good showing, too, this year, but the growth trend line would be looking a lot better had there not been crippling strikes for a month-and-a-half on the Canadian railroads. With the strikes behind them, the Canadian roads are looking toward a 1974 which should show substantial piggyback increases—especially in COFC traffic—over 1973.

Before the strikes began in late July, Canadian Pacific's forecasts for 1973 indicated an 8.3% increase in TOFC traffic and a 13.5% increase in COFC. Dimmed somewhat by the strike, the TOFC forecast now shows only a 3.5% increase for the year. COFC, on the other hand, suffered very little from the strike, and CP Rail expects the level of increase to remain about the same as was projected in the pre-strike forecast.

"The future for 1974 looks bright. We anticipate a 20% growth for TOFC over 1973, and a 30% COFC growth," says CP Rail's A.E. Jenner, general manager-piggyback services.

On strike-free U.S. railroads, piggyback's track record for the year has been phenomenal. Carloadings in the first 36 weeks of 1973 totaled 1,043,376 cars, up 17.2% from last year. Actually, piggyback took off on its loading spree along toward the middle of last year and it still isn't showing any signs of running out of steam. Even in the summer months when piggyback historically eases off, loadings continued upwards, leading one intermodal manager to comment: "We've been forced to live through the pre-Christmas rush all year long with no let-up whatsoever."

Strangely enough, piggyback figures

for the year probably could be a lot higher than they already are. Throughout the year, pockets of equipment shortages have developed, forcing a number of trailer-loads scheduled to move via piggyback to take to the highway. However, while there were reports of occasional car shortages, the big problem was in shortages of piggyback trailers. Had there not been these trailer shortages, pointed out a West Coast intermodalist, there's a good chance that a more serious car shortage could have developed.

Railroads, piggyback equipment owners and lessors, and suppliers of equipment have pulled out all the stops to keep pace with piggyback's growth here and in Canada. And more millions are being spent on new terminals and handling equipment to enable piggyback to do what it does best—provide fast, reliable, year-round, all-weather, no-fuss service with the kind of flexibility that shippers look for.

● **Piggyback's ultimate share: 25%?** It's easy to overwork superlatives when talking about the outlook for piggyback. Just how far can it really go? Some say it could eventually top 25% of all carloadings. Since today's piggyback loadings represent less than 5% of all carloadings, it is pretty obvious that there will be a lot of investing in piggyback equipment and facilities in the years ahead so that it may reach the level predicted for it.

How large a role is containerization going to play in helping piggyback reach the potential that reportedly exists for it? At the present time, containerization is mostly an import-export transportation service. Meanwhile, domestic containerization in the U.S. is, for the most part, a concept, an idea, with probably fewer advocates than it has foes.

● **Where the action is.** Import-export containerization makes up the bulk of the COFC business on U.S. and Canadian railroads today, and it should grow at a breathtaking pace in the years ahead. Landbridge and mini-bridge, a pair of concepts in which railroads become an integral part of the world's sea lanes, are now moving trainloads of containers overland between Pacific Coast ports and East and Gulf ports. What these concepts do is free up expensive, $30-million-plus containerships from making the long, time-consuming, all-water trip through the Panama Canal. The end result is that these containerships can make several more trans-ocean crossings per year by avoiding the portion of the trip which railroads are taking over.

Estimates of the "bridge" savings for the steamship lines vary, but upwards of $20,000 per trip for a shipload between Europe and the Far East is quite possibly in the ballpark. Substantial savings, although somewhat less, are being realized by using the landbridge routings on loads moving between, say, the East Coast and the Far East or Gulf Coast ports and the Far East.

● **But there is a problem.** Unfortunately, a real donnybrook may be developing over mini-bridge. Port operators and longshoremen on the East and Gulf Coasts are upset over loss of Far East-bound cargo to the mini-bridge. East Coast products are being containerized, loaded aboard flat cars and shipped cross-country to West Coast ports where the cargo is then loaded aboard containerships for the ocean voyage to the Far East. Thus, loading operations—and additional handling costs—at the East and Gulf Coast ports are being avoided.

The ports have taken their case to court in Philadelphia and have been seeking an injunction to halt mini-bridge. It's believed that such an injunction is not likely to be handed down in the near future, and the general feeling is that there will be a long court battle all the way to the U.S. Supreme Court. Meanwhile, however, the action could slow down interest in mini-bridge, some railroad observers fear. Land bridge, of course, is not an issue in the dispute.

The Canadian roads are moving ahead on several fronts to advance—and reap the benefits of—intermodality. CN estimates that it will handle 150,000 import-export containers this year. Port facilities are being improved, with Vancouver, for example, selected as the site of a new 76-acre terminal on the south side of the waterfront. A high rise container storage facility is planned, and this fully automated operation is expected to be able to handle a container every 45 seconds.

Elsewhere on the intermodal scene at CN, solid container trains are being operated on a daily schedule between major ports. Close to $25 million in intermodal equipment is on order. And, a systemwide container and trailer network that will be integrated with U.S. systems is being developed.

At CP Rail, the story reads just about the same. The intermodal rail car fleet is expanding to meet increased traffic and should number close to 1,900 units by the end of the year. Of its 61 piggyback terminals, 14 have been expanded and equipped to handle containers. At eight sites, side loading is employed, while the remaining six terminals feature overhead lifting systems. Prior to the strike, CP Rail issued a forecast of 111,000 container movements for the year to go along with an expected 150,000 trailer movements.

● **Looking at the home front.** Having achieved a full measure of success in handling import-export containers (and expecting no reversal whatsoever in the upward trend of this form of intermodalism), Canadian roads are taking a very close look at the domestic scene. However, the explosiveness of the export-

Federal highway

September 1, 1974, won't be just another day in the lives of the purchasers of the air-brake-equipped vehicles that travel the nation's highways. On that day, Federal Motor Vehicle Safety Standard 121 goes into effect, and the moment it does, buyers can expect to pay substantially more for such vehicles than they do today. It has been estimated, for example, that a piggyback trailer will jump $600 in price—maybe more—when "121" becomes law.

MVSS 121, which is directed at trucks, truck tractors, buses and trailers fitted with air brakes, calls for such things as shorter stopping distances, precisely controlled wheel lock-up and greater vehicle stability during emergency stops. About the only way all these requirements can be met is with some type of computer-controlled antilock system, which costs approximately $100-150 per vehicle axle. Installation costs also are expected to be high.

The new law applies to vehicles built after September 1, 1974. It has been estimated—conservatively—that "121" is creating a new $100 million annual market for suppliers of the antilock systems. At least 10 American firms and one foreign company are reported to be engaged in research and design of such systems. Some are tooling up for production of the devices, while at least one is ready to go into full production.

The American Trucking Associations, which has offered several amendments to the standard, is strongly opposed to the deadline for application of the antilock systems, claiming that not enough time has been allowed to fully test and study them. On Nov. 7 and 8, at the Transportation Research Center of Ohio in East Liberty, Ohio, a public evaluation will be made to determine whether any problems exist when, say, a tractor equipped with an antilock system is operated with a non-equipped trailer, or the other way around. This test of performance is regarded by some as ATA's last, backs-against-the-wall stand against the Sept. 1 deadline.

Owners of piggyback trailers should be as upset as anyone over the added equipment costs imposed by "121." After all, these trailers spend relatively little moving on rubber. Some may never see a highway.

However, while piggyback trailer owners may not be exactly happy about the idea of paying out hard-earned dollars for the antilock systems, the requirement in MVSS 121 that perhaps has them most concerned is the one calling for automatic parking brakes.

braking standard to involve piggyback trailers

The Truck Trailer Manufacturers Association seems to be puzzled over the parking brake requirement, too.

The parking brake portion of the standard states that "once applied, the parking brakes shall be held in the applied position solely by mechanical means." Spring brakes could, of course, do the job. The standard also requires that these brakes be applied automatically. So, what happens when a piggyback trailer is circus-loaded aboard a flat car? As the towing vehicle disengages, the trailer brakes are applied automatically. And, hasn't it always been preached that trailer brakes must be released while the vehicle is aboard the flat car?

The spring parking brakes are designed so that they can be released manually. The standard requires this feature. What TTMA—and piggyback operators, too—are concerned about are the actions of the man doing the loading. Will he release the spring brakes? Or will he regard them as something that's furnishing added cushioning, and leave them engaged? If the brakes aren't released, will the wheel bearings suffer brinelling and will the flat car's trailer hitch suffer additional wear?

Actually, it's quite possible that there's nothing whatsoever to worry about if the brakes remain engaged while the trailer is secured on the flat car. A comprehensive study was conducted a few years back to determine whether it was more beneficial to release the trailer brakes or leave them engaged. This little-known study reportedly indicated that both the equipment and the cargo are better off with the brakes engaged. It's quite possible, therefore, that there may not be any need for concern over the automatic parking brake requirement of MVSS 121.

Since the antilock systems developed to meet the requirements of "121" are much more sophisticated than any other systems or devices on today's trailers, there could be reason for concern by owners and operators over the possible maintenance complications that could develop. But, for the most part, manufacturers have attempted to keep the number of system components to a minimum and also as simple as possible to service and maintain.

Virtually all system designs developed thus far have three basic components: (1) a sensing device for measuring wheel speed, (2) a computer which takes the wheel speed readings and determines what, if anything, the braking system should do, and (3) an air valve which accepts the computer's commands and regulates the brakes.

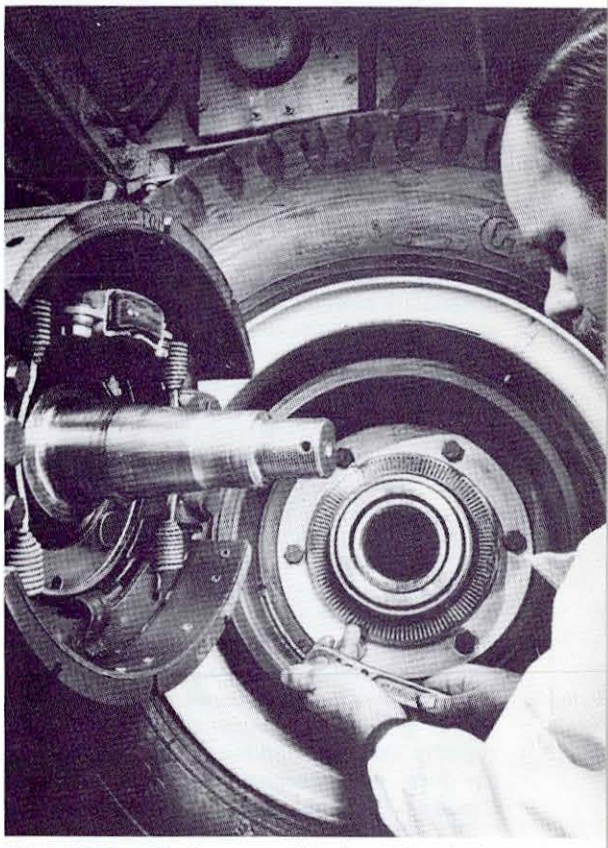
TRIPLE ACTION, the B.F. Goodrich skid control system for air-brake equipped highway vehicles, consists of a bi-polar sensor being held in front of wheel exciter ring and relay.

To simplify maintenance of its system, Berg Manufacturing Co., developer of the Berg-Fiat Anti-Lock System, has designed its computer in such a way that it can be removed and replaced simply by disconnecting the lead wires and removing four fasteners. The outboard sensors on each wheel are fully assembled and preset and are easy to install or remove. The valve is similar to conventional air system valves and doesn't require any extraordinary skills to service.

Likewise, another of the systems, Skid-Trol, developed by Rockwell-Standard, has been kept as simple as possible. The system's electronic module and its wheel speed sensors can be replaced as units. The other basic component is the slotted rotor on each wheel that sends impulses to the sensors. Skid-Trol is a digital system, contrasted with analog or analog-digital systems found in other manufacturers' systems, and as such it is said to be able to better withstand aging, shock and severe temperature extremes.

B.F. Goodrich has developed a skid control system called Triple Action which features three basic components, all designed for easy servicing and replacement. A bi-polar sensor, a wheel exciter ring and a combination computer-relay valve unit make up the system.

Fortunately, all manufacturers of the antilock systems seem to be acutely aware of the potentially worrisome problem of maintenance and are designing systems which servicing personnel can contend with fairly easily.



SKID-TROL antilock system of Rockwell-Standard features a slotted rotor and wheel sensor (above) mounted on the end of each axle and small digital computer (below).

Intermodal growth can challenge even latest rail technology

import container traffic growth is not expected to develop on the domestic container front.

CN mapped out a plan earlier this year for introducing a full multi-modal program for domestic traffic. Initially, door-to-door container service between Toronto and Winnipeg, Edmonton and Vancouver was planned, using 70 CN 20-ft steel-framed containers. After full evaluation of the program, the service may be expanded.

CP Rail's A.E. Jenner, general manager-piggyback services, in taking a long-range look at domestic containerization, sees "a progressive and systematic change toward containerization" developing within domestic intermodal operations. The change will be seen first in long hauls, he feels, and then become noticeable on the shorter ones.

● **By 1985, half the business.** COFC has received a lot of attention in Canada, but TOFC is also a very viable part of intermodal operations, too. Here again, each of the Canadian roads is very optimistic about the trailer-on-flat-car's role in moving domestic traffic—the high rated non-bulk cargoes, of course. CN's S.T. Cooke, general manager-modal market development, predicted recently that by 1985 more than half of the total rail transportation market in Canada will be intermodal.

He feels that the import-export experience obtained with containerization has changed attitudes and should help bring about much smoother development of domestic intermodal services. One of the big hurdles to be overcome, remarked Cooke, is "getting customers or potential users of our intermodal systems to adjust their planning or shipping procedures so as to efficiently or effectively use these systems."

The that's-the-way-we've-always-done-it attitude of the railroad industry will have to discarded, claims Cooke, if intermodal's potential is to be achieved. "In exploiting the future market potential of intermodal traffic there is no way that the railways can restrict themselves to 'standard operating practice.' The railway industry has spent a quarter of a century coping with a rapid rate of technological change.

"I believe," continued Cooke, "that the development of intermodal's 50% of the market will involve an equally high and disturbing rate of change. Many of these changes will challenge some of our most recent technology. For example, intermodal unit trains may make hump yards obsolete by originating and terminating in their own service centers, bypassing these yards altogether."

● **Thinking must change.** CP Rail's Jenner agrees with Cooke that there will have to be wholesale changes in thinking by customers, by railroad managers and by employees if intermodal is to fulfill its potential. "We've got to try to educate train crews that it is in their best interest to make longer runs without crew changes. On our Montreal-Toronto run of 350 miles, we change crews three times in seven hours. If we're to be more competitive with other modes, and gain more intermodal traffic, we've got to change things like this."

While a lot of changes may be expected along the way toward greater involvement in intermodal traffic, it isn't likely that the attitude of Canadian roads toward piggyback flat car equipment is apt to change. CP Rail's piggyback car fleet is made up primarily of 63-ft and 54-ft flat cars, with a few leased longer cars added in. Articulated cars are being studied at the moment, but no commitment to equipment of this nature has been made.

Provincial governments govern the lengths of semi-trailers operating over Canadian highways, says Jenner, and CP Rail feels that the trend—toward two 40-ft trailers or three 26-ft units behind one rig—would make it unwise for the railroad to switch from the size cars it operates now. Hopefully, he adds, highway operation of two 45-ft trailers in tandem won't receive provincial government approval anywhere in Canada, but it is being talked about. If this should come about, the case against 89-ft flat cars would become even stronger.

● **Change standards.** Although it doesn't anticipate any revolutionary changes in flat car equipment, CP Rail feels that perhaps there may have to be a departure made in container sizes used in domestic operations. The 20-ft import-export container may be quite suitable for the service it's in, but it has a number of shortcomings that could cause shippers to reject the idea of containerizing domestic shipments.

Jenner feels that the two container standards for domestic service should be 26-ft and 40-ft units, 8½-ft wide and 9-ft high.

CP Rail is, however, handling a number of export-import containers in domestic service, much to the satisfaction of one particular customer—Canadian Retail Shippers Association. In this instance, containerloads from the Far East are arriving at inland container-handling terminals in Montreal or Toronto ports. When made empty, CRSA is loading the containers with goods for back-hauls to stores in Vancouver.

After that the empties are turned over to the containership for movement back to the Far East for another load. There's no free back-haul of empty containers granted by either CP Rail or CN, so this particular arrangement gets the hearty approval of the container owners.

● **Utilization—204 miles a day.** As is true in the U.S., tremendous strides have been made by the Canadian roads in getting better flat car utilization. The track record for TOFC cars on CP Rail is now 204 miles per car per day, equal to 73,000 miles per car per year. This enviable record is up from just 148 miles per car per day back in 1969. Efforts are now being made, says Jenner, to boost the performance of COFC cars. The real work to get better performance will have to be done in the ports where far too many container car days are lost.

While it is not difficult at all to find optimism in the U.S. about piggyback's future or about the outlook for export-import containerization (assuming the East Coast and Gulf ports don't get their way about outlawing mini-bridge), it is often a difficult task to find anyone who wants to predict a bright future for domestic containerization. At least at the moment, the technology of intermodality doesn't favor domestic containerization, and the logistical night-

Piggyback's Share of the U.S. Rail Market, 1964-1971

	Percentage of net tons terminated	Percentage of total revenues
1964	.8	3.7
1965	.9	4.1
1966	1.0	4.8
1967	1.1	5.4
1968	1.2	6.0
1969	1.3	6.3
1970	1.2	6.3
1971	1.3	6.2

TOFC/COFC in Canada

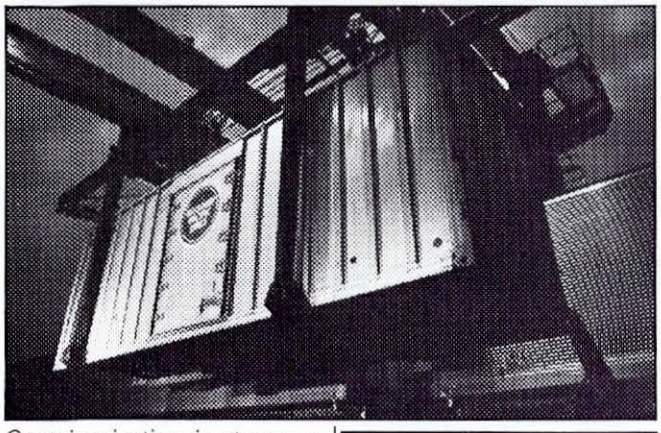
Relation of piggyback loadings to total carloadings		Relationship of piggyback tonnage to total tonnage	
1969	6.1%	1969	2.0%
1970	5.8%	1970	2.1%
1971	7.2%	1971	2.8%
1972	8.5%	1972	3.4%
1973*	8.9%	1973*	3.5%

Share of total piggyback loadings

	COFC	TOFC
1972	36%	64%
1973*	40%	60%

*First 8 months

A Mo-Pac Guide. A short course in containerization



Containerization is at once a wonder, a lifesaver and an enigma to the traffic manager. Containerization has become one of the most significant developments in the field of distribution, and if any of us are to succeed, it is apparent that we have to make it work for us.

But before we do, we have to understand it.

Mo-Pac offers you this brief, and admittedly biased course on the subject of containerization . . . and what we're doing to make it work for you.

1. A CONTAINER IS REALLY A BOX.

There's nothing mysterious about it. The idea is simple. A container is defined as "an enclosed, permanent, reusable, non-disposable shipping conveyance with at least one door, and capable of being handled by different modes of transport". In other words, a box.

You simply wrap up your shipment in one or more containers and send it off by truck, rail, air or ship.

2. WHERE DID THE IDEA COME FROM?

While there is a difference of opinion on this, according to Joe Austin, V.P., Traffic, Mo-Pac, it started with the old circus trains during the last century.

To eliminate the danger of moving the animals from one cage to another when the circus was moving into or leaving a town, someone figured out that the cages could be placed intact right on the circus train and then removed when it was time to set up the show. The animals never left their cages.

3. IT'S THE SAME IDEA TODAY.

Ease of handling is still an important reason more and more shippers use containerization. Along with speed and economy, the difference today is that you don't just have lions and tigers, but a myriad of commodities. Which means you have to have the right services, equipment and people. That means the right carrier.

4. ENTER MO-PAC'S CONTAINERPAK.

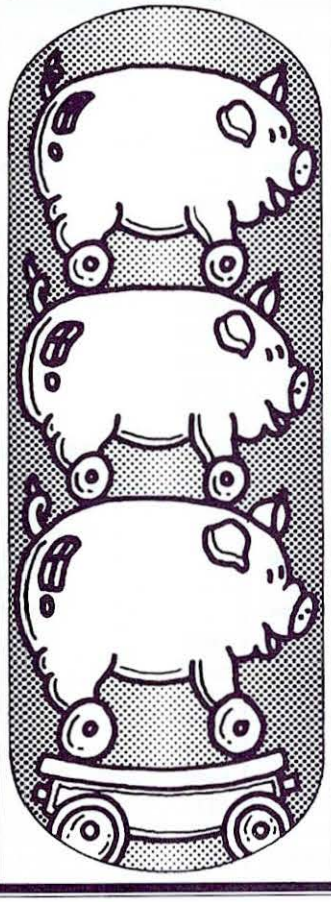
Our own, special containerization program with four workable plans for your distribution needs.

Containerpak I.
Flatcar all the way.
Container is placed on flat car at the yard or dock and moves by rail to customer's siding, or team track, where it remains on flatcar during stuffing or stripping.

Containerpak II.
Wheels at both ends.
Container is received with wheels which are removed as the container moves to flat car. At destination, the container is put back on wheels and delivered.

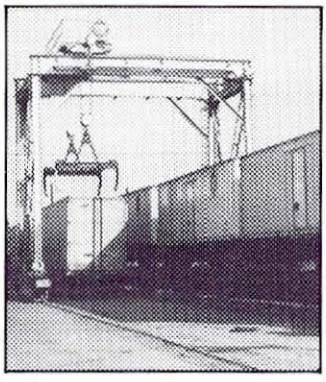
Containerpak III.
Wheels all the way, Piggyback.
Container goes on chassis all the way.

Containerpak X.
The custom job.
Containerization specifically suited to your needs. Any combination of Plan I, II, or III used as building blocks for your container program.



5. THE RIGHT SERVICES AND EQUIPMENT AND PEOPLE.

Behind Containerpak are our seventeen shipper services, including six direct intermodal trains, stuffing and stripping, chassis leasing when you need it, heavy equipment to handle it right, container interchange agreements between Mo-Pac, steamship lines and other container handlers, plus LTL/LCL service.



Making it all work is Mo-Pac's dedicated, professional team. They're people who know their jobs and how to get things rolling for you.

6. PUT IT TO WORK.

Just contact your Mo-Pac representative. He knows how to make containerization successful for you. He's been through the course before.

mo-pac

Missouri Pacific Railroad
Texas & Pacific Railway
Chicago & Eastern Illinois R.R.
Missouri Pacific Truck Lines
Texas & Pacific Motor Transport

mare of trying to have bogies at the right place at the right time to accomodate arriving containers doesn't favor the concept.

● **Nothing new.** By no stretch of the imagination is domestic containerization a new concept on U.S. railroads. Back in 1921, the New York Central experimented extensively with the idea. Seven years later, Missouri Pacific gave it a whirl in an attempt to combat the high cost of LCL traffic and to strike back at emerging trucking companies who were beginning to siphon off business. ICC rejection of some of the rate plans developed for container traffic eventually did in the MoPac program.

In the 1950s, attempts were made at reviving the domestic container concept. But the lack of handling equipment at terminals and disagreements over standard sizes of containers and standards for fasteners and lifting castings brought developments to a virtual standstill.

New York Central went heavily for its Flexi-Van container concept and units acquired for this service survive in Penn Central's piggyback fleet. When Southern belatedly came into piggyback, it was with containers. Today Southern continues to push COFC for on-line service since its terminals have container-handling equipment. Interline, however, finds Southern originating and receiving trailers.

Containerization—export-import as well as domestic—has a number of "good news" features and a number of "bad news" features. First, the good:

—Containers load and unload quickly.

—since it has no chassis or bogie, the container saves shipping 5,000 pounds of deadweight.

—with a lower center of gravity aboard the flat car, it should ride better than the trailer.

—wind resistance is lower.

—overhead clearances aren't as critical as

How piggyback traffic now moves: A breakdown by "plans"

Piggyback traffic, 1964-1972
Plan I

	Percentage of terminations	Percentage of revenues
1964	24.6	14.2
1965	22.5	12.3
1966	19.5	10.7
1967	15.7	7.9
1968	14.5	7.4
1969	12.6	6.5
1970	8.9	4.8
1971	10.8	6.2
1972	10.1	4.9

Piggyback traffic, 1964-72
Plan II

	Percentage of terminations	Percentage of revenues
1964	38.4	45.4
1965	37.3	43.8
1966	36.9	42.2
1967	38.2	43.0
1968	35.0	38.5
1969	34.1	37.1
1970	31.4	33.9
1971	28.8	30.7
1972	28.1	28.1

Piggyback traffic, 1964-1972
Plan II½

	Percentage of terminations	Percentage of revenues
1964	3.6	5.2
1965	3.7	6.9
1966	4.1	7.0
1967	6.8	10.4
1968	24.1	25.2
1969	27.8	28.4
1970	37.5	36.4
1971	37.8	35.9
1972	35.9	35.7

Piggyback traffic, 1964-1972
Plan III

	Percentage of terminations	Percentage of revenues
1964	23.1	20.1
1965	25.8	21.7
1966	26.8	21.4
1967	24.8	18.0
1968	8.9	6.3
1969	7.1	5.0
1970	4.8	3.6
1971	4.9	3.6
1972	3.4	3.4

Piggyback traffic, 1964-1972
Plan IV

	Percentage of terminations	Percentage of revenues
1964	5.6	10.6
1965	5.3	9.2
1966	6.1	11.1
1967	7.0	12.4
1968	6.9	12.3
1969	7.0	12.4
1970	7.6	12.9
1971	8.7	15.4
1972	9.3	18.4

Piggyback traffic, 1964-1972
Plan V

	Percentage of terminations	Percentage of revenues
1964	3.2	3.1
1965	3.4	3.6
1966	3.2	3.4
1967	3.2	3.4
1968	3.0	2.7
1969	2.9	2.6
1970	2.9	2.3
1971	2.6	2.3
1972	2.5	2.4

Plan I
Railroad movement of trailers or containers of motor common carriers, with the shipment moving on one bill of lading, and billing being done by the motor carrier.

Plan II
Railroad performs its own door-to-door service, moving its own trailers or containers on flat cars under tariffs usually similar to those of motor carriers.

Plan II½
The railroad, as in Plan II, supplies the trailer or container equipment but shippers, including freight forwarders or motor carriers, perform either the pickup or delivery service, or both such services.

Plan III
Ramp-to-ramp rates based on a flat charge, regardless of the contents of trailers and containers provided by shippers, including freight forwarders and motor carriers. No pickup or delivery is done by railroads.

Plan IV
The shipper or forwarder furnishes either an owned or leased trailer or container-loaded flat car. The railroad makes a flat charge for loaded or empty car movements, furnishing only power and rails.

Plan V
Traffic moves generally under joint rail-motor rates or other arrangements of coordinated rail-motor services. Either mode may solicit traffic for through movement.

Piggyback traffic, 1964-1972
Other arrangements

	Percentage of terminations	Percentage of revenues
1964	1.5	1.4
1965	2.0	2.5
1966	3.4	4.2
1967	4.3	4.9
1968	7.6	7.6
1969	8.5	8.0
1970	6.9	6.1
1971	6.4	5.9
1972	7.0	5.6

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A large Western road operates 18 Schramm Pneumatractor® self-propelled air compressors with retractable railcar wheels. These sturdy units save time by getting to and from job sites speedily, by being able to move quickly from rails to roads or right-of-way, and by providing air instantly.

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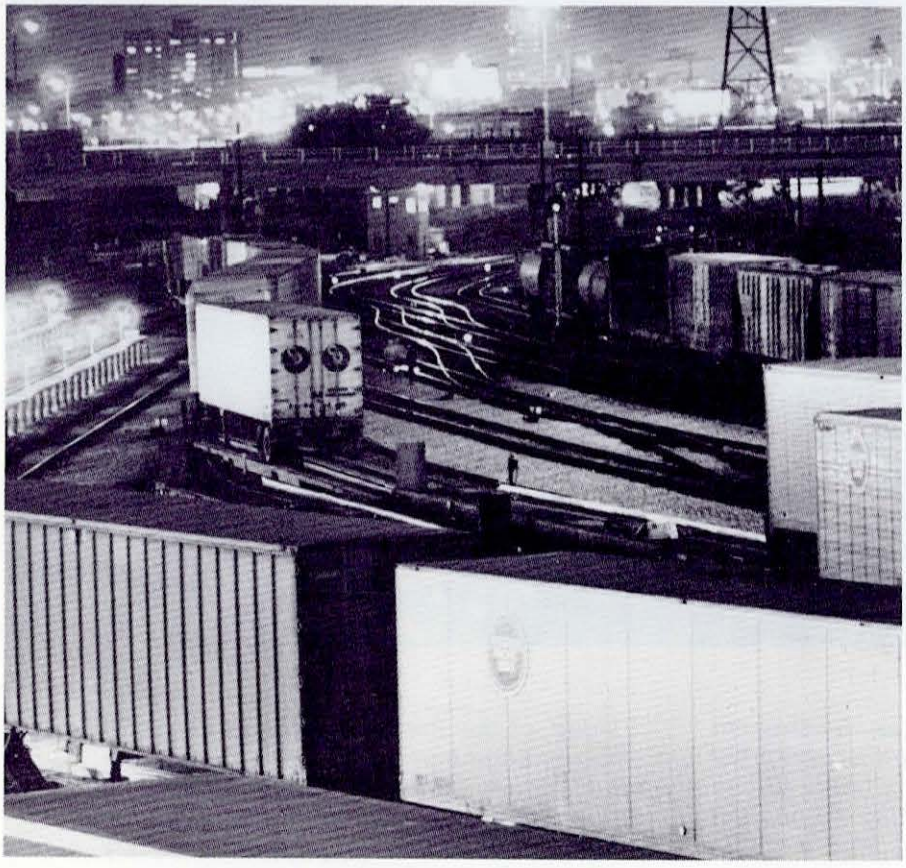
Circle 12 on coupon page 69

INTERMODAL TRAFFIC is of growing importance to the railroads; Missouri Pacific's St. Louis yard and piggyback terminal reflect the trend.



with a trailer aboard a flat car.
—the trailer hitch problem is eliminated.
—fewer license tags are needed.
—it's handy to ship overseas and it's easy to stack—in the containership or the terminal, where in each case space may be very scarce.
—COFC is safer than TOFC.

● **But then there's the bad.** Unfortunately, although the "bad news" features of containerization are far fewer in number, their impact is great enough to give the domestic concept the kind of bad marks which are causing intermodalists to shy away from it. First of all, there's the tremendous investment in handling equipment that is absolutely necessary. And, of course, there is the nagging container-bogie matchup problem at the terminal which must be overcome before containerization can have any chance at all.

"Containerization in domestic operations may sound good in theory," says an intermodal manager for a leading railroad in the Midwest, "but when you talk containers, you'd better be ready to talk about chassis, too. It could probably be worked out between high volume terminals, but you'd still have to have just about a one-to-one ratio of containers and chassis. And, even so, you still wouldn't have the flexibility of TOFC."

Another intermodal researcher explained that when he entered this particular field of transportation, he was a "dyed-in-the-wool" containerization advocate. "As I began digging into the subject, I found myself changing my mind," he added. "Handling containers in import-export trade is fine, but the equipment control problem in domestic container operations is a difficult one to overcome."

Thus, the general attitude of U.S. railroads toward domestic containerization is one of: "Yes, it may work between two specific locations, but any widespread use of it does not seem practical at the moment."

● **Prefer talking TOFC.** The attitude at the moment toward TOFC is another, far different story. Here's what the picture is like on some of the U.S. roads:

Santa Fe. Piggyback volume is almost 20% ahead of the like period of last year. Revenues are up, but not nearly as much as the volume, and expenses are also up. One mini-bridge train in each direction once a week is being operated, sending the growth figures of container traffic soaring. Expansion is planned or under way at piggyback terminals in Chicago, Kansas City, Dallas, Houston, and Hobard and Richmond, in Calif.

Seaboard Coast Line. Volume is also up about 20% and the outlook for the final

(continued on page 51)

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Circle 13 on coupon page 69

How shippers rate Penn Central today

Penn Central shippers, who were in open revolt against the railroad even before its financial collapse, are now confirming what William H. Moore, president of the beleaguered carrier, has been claiming for many months: though still drenched in red ink, PC has made a remarkable turnaround in terms of service to its customers.

Of 95 shippers surveyed by Railway Age, 53% now give PC a "good" rating on service reliability. Only 9% rate PC service as poor. PC gets an even higher plus vote—58%—for attention to customer needs.

As for availability of equipment, and the condition of that equipment once it becomes available, and prevention of damage to goods in transit, PC gets only a "fair" rating—but it's doubtful, in view of the continuing nation-wide shortage of cars, if many of the bankrupt road's solvent neighbors would rank much higher in these areas.

The shippers surveyed in Railway Age's October Traffic Poll represent a broad spectrum of PC's customers, in terms of size, location and commodities shipped.

A handful of the replies were unreservedly enthusiastic about PC's turnaround. Two or three were unreservedly critical. Most found PC substantially improved in a few areas—especially in transit time—but with much still to be done in others, particularly in equipment and track maintenance.

● **"Service is consistent."** J. Robert Morton, vice president-corporate transportation, Combustion Engineering Inc., Stamford, Conn: "Bill Moore said, 'We will give you the service if you will give us the carloads.' He has kept his promise. Of course there is always the occasional car that falls off the schedule, but in the main service is consistent. The marketing studies that Penn Central has been making to attract tonnage are correct and a forward step. The attention of their sales managers and salesmen is most creditable—they want to do and are doing a tremendous job facing the worst kinds of odds: uncertainty."

J.A. Illes, director of transportation, Outboard Marine Corp., gives Penn Central good marks right down the line: "We have no complaints; they have performed the service we required."

Francis J. Snyder, transportation manager of the S.B.I.C. Division, Heublein, Inc., Hartford, Conn., is another satisfied customer: "The Penn Central has been outstanding in its efforts to serve us. We are most happy with them" He is particularly impressed with the railroad's "cooperation with the shippers' needs in mind, and with piggyback service."

COMBUSTION ENGINEERING's Morton: "Bill Moore said, 'We will give you the service if you will give us the carloads.' He has kept his promise."

TEE PAK's Walter L. Weart: "Penn Central has consistently outperformed its solvent rivals on our piggyback traffic. But carload service is poor."

George Sperry, traffic manager-rates, National Distillers & Chemical Corp., New York, cites great improvement in transit time: "Cars from Indianapolis to Bridgeport, Conn., that were taking 10 to 12 days in transit are presently averaging five days."

C.P. Rowe, general traffic manager, S.S. Kresge Co., Troy, Mich., finds improvement in both service and equipment availability, adding: "I can truthfully say that we are most happy with every phase of Penn Central's effort to afford proper and adequate service."

J.P. Chopskie, general traffic manager, Bridgeport Brass Co., Bridgeport, Conn., rates PC "good" in all categories except equipment condition, which he marks "fair." Chopskie discerns "a willingness to tackle any new problems that come up—a 'what more can we do for you' attitude that reflects a sincere interest in generating new business."

● **"Willing to help."** J.L. Bergen, traffic manager, Uncle Ben's Inc., Houston, has been impressed with PC's "improvement in transit time and delivery reliability," and also with the change in morale: "People seem more willing to help you." He finds car-tracing information to be inconsistent, ranging "from good to fair, depending on the individual personnel. Basically, it has improved."

R.L. Kendall, general traffic manager, Inland Container Corp., Indianapolis, says Penn Central has improved in terms of "service and desire," though not in equipment: "At some locations there has been improvement, but the general level of standard box cars is low."

C.C. Cory, corporate transportation manager-pricing, Firestone Tire & Rubber Co., Akron, Ohio, applauds PC's "efforts to increase participation and revenue"—and he sees some improvement in service reliability: "However, this was at such a terrible low to begin with that much more attention needs to be directed toward this area. In fact, it is my feeling that nearly all rail carriers desperately need to place added emphasis on service reliability if they hope to maintain or improve their position in intermodal consideration."

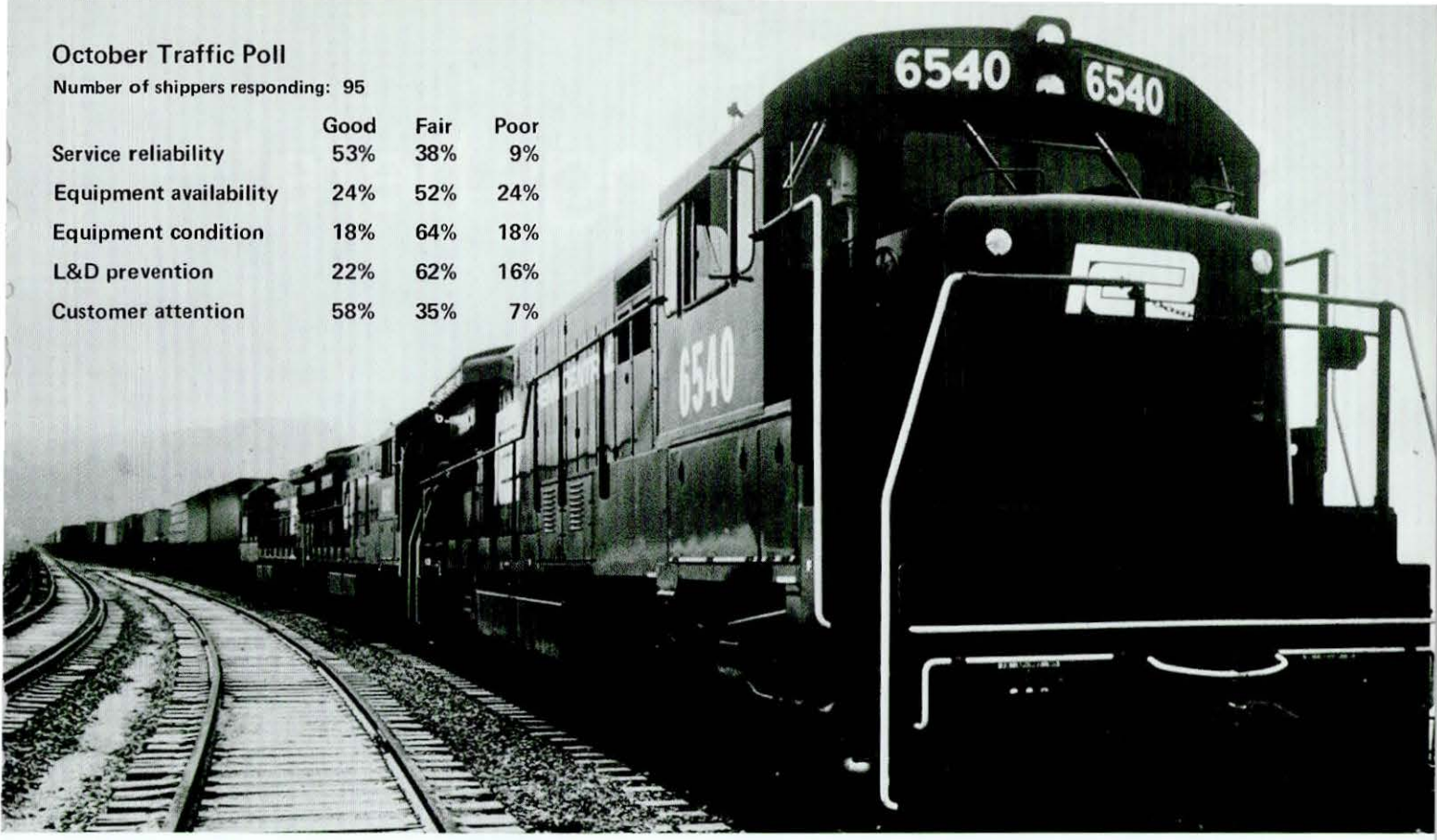
T.E. Jasin, general traffic manager, Babcock & Wilcox Co., Barberton, Ohio sees "improved service in some areas and some types of shipments," but he also discerns "an apparent continuing lack of service orientation among the operating people. The sales personnel try to solve problems but have no more success than we when working with operating personnel to expedite cars either loaded or empty. We have penalty contracts and strive to load in sufficient time to meet our customers' requirements."

Henry M. Karel, director of distribution for Cleo Wrap Corp., Memphis, has found improvement in transit time and rates PC good on service reliability. He has found less improvement "in terms of attitude on the part of the personnel," and adds: "The Penn Central

October Traffic Poll

Number of shippers responding: 95

	Good	Fair	Poor
Service reliability	53%	38%	9%
Equipment availability	24%	52%	24%
Equipment condition	18%	64%	18%
L&D prevention	22%	62%	16%
Customer attention	58%	35%	7%



cannot yet realize, in my opinion, new and innovative ideas in management, rates, special services and the like."

T.H. Egan, Jr., manager of purchasing and traffic for General Latex & Chemical Corp., Cambridge, Mass., has noticed improvements in system-wide end-to-end service and in car-location information services, but complains that "availability of rate information is not as good as it once was."

R.E. Alexander, vice president, Pillsbury, Minneapolis, thinks Penn Central has made a fair-to-good showing in improving customer service and reliability, but underscores equipment availability and equipment condition as areas still needing a lot of work.

● **Financial pinch cited.** A.E. Leitherer, vice president traffic, Allied Mills, Inc., Chicago, reports improvement in service reliability and customer attention, but he rates equipment availability only fair and equipment condition poor. "I am sure," adds Leitherer, "that the financial pinch causes considerable problems in overall improvement in service. This also undoubtedly also aggravates the car supply problem, which has been most severe."

H.M. Pockrose, director of transportation, David J. Joseph Co., Cincinnati, also cites PC's financial woes as a mitigating factor: "Since the railroad does not have the money it needs to improve its fleet, it has no alternative but to fall short on equipment needs." At the same time, Pockrose gives PC a good rating on service reliability, commenting, "There is improvement in the movement of goods once the shipment is billed out."

Richard M. Tice, traffic manager-rates, Scovill Manufacturing Co., Waterbury, Conn., gives PC "fair" marks in all categories. Says Tice: "In all fairness to the Penn Central it must be recognized that many services and facilities are cut back because of its precarious financial position. Even though the remaining services are operating in a more efficient manner and doing a better job, the fact is that the overall result has been a lesser service to the shipper/receiver. We compensate to get along within the framework of this lesser service."

J.F. Stoerrle, corporate traffic manager, the Budd Co., Philadelphia, rates Penn Central high on "cooperation and willingness to do everything possible to solve problems." There's room for improvement, he thinks, in maintenance—"However, as we all know, this is due to their poor financial condition."

L.W. Smith, manager-traffic, the Upjohn Co., Kalamazoo, Mich., finds improvement in three main areas: "There has been a definite change of attitude and interest in customer service by sales and marketing people, particularly in the TOFC Division. There seems to be a better rail car maintenance program as judged by the lesser number of delays due to bad order cars. Line haul movements have improved from a reliability standpoint, although the normal transit time has not changed noticeably."

Smith also has some observations to make on the other side of the ledger: "Service problems continue in what appears to be yard operations. From our viewpoint it is apparently related to the communications between the operating people or lack of interest by a certain faction in doing the job right.

"Due to a frequent turnover of yard office personnel, there is an extreme lack of adequate training, resulting in a lot of additional time and effort on the part of customers and the Penn Central in correcting records and obtaining information.

"Although there has been noticeable improvement in the billing process, there is still considerable delay in sending invoices. This would seem to be an extremely critical area under the present circumstances and requires immediate attention."

James D. Mitchell, assistant general traffic and transportation manager, Coca-Cola U.S.A., Atlanta, is pleased with PC's customer relations: "Our transportation personnel are getting more responsible attention to everyday problems." But he sees "no measurable improvement in transit times, some of which are obviously slow, e.g., 5-7 days Philadelphia, Pa., to Kearny, N.J."

R.E. Malone, manager traffic services, H.J. Heinz, notes that "loss and damage claim handling has improved. Service reliability improved for a while but has fallen off in recent months." As for equipment availability, he finds it "about as good as with other carriers, in the face of shortages."

Glenn Conklin, traffic manager, Pennwalt Corp., Philadelphia, finds im-

(Continued on page 60)

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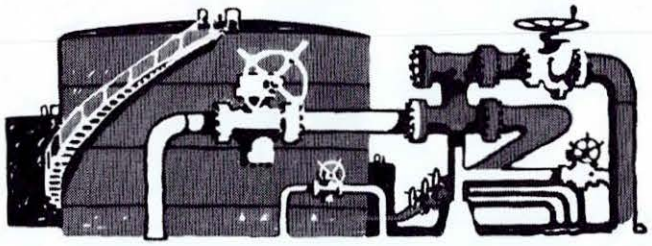

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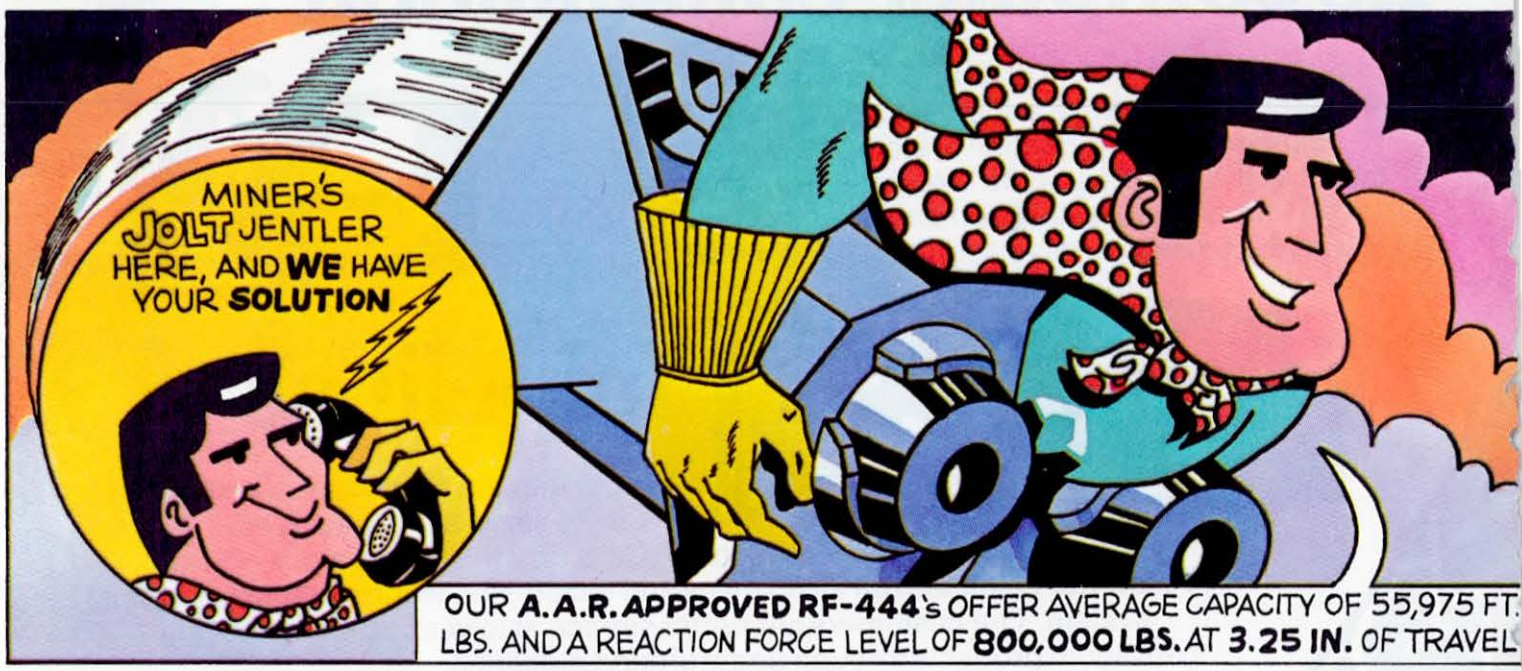
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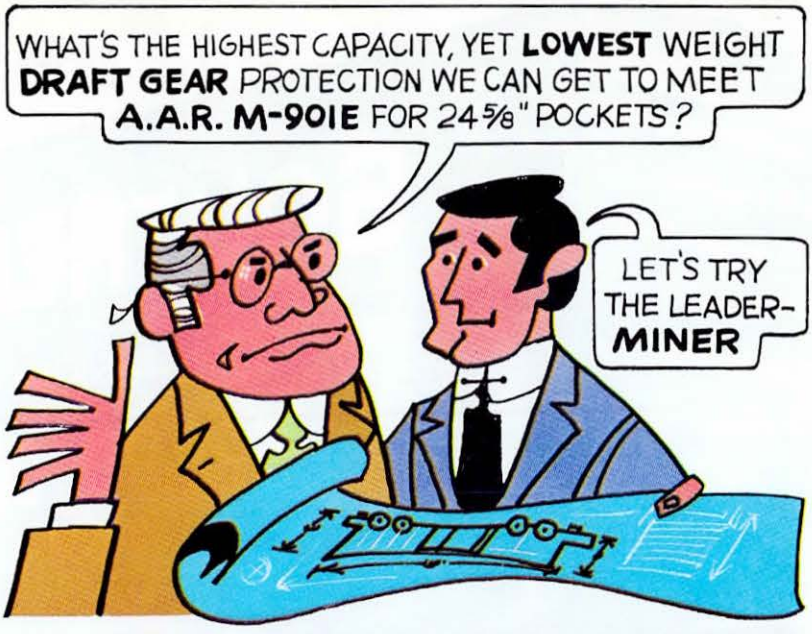
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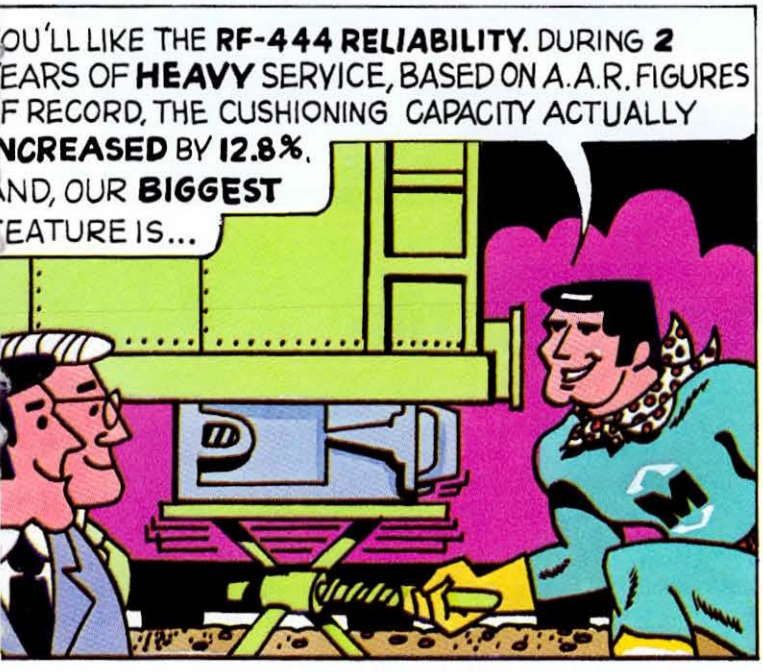
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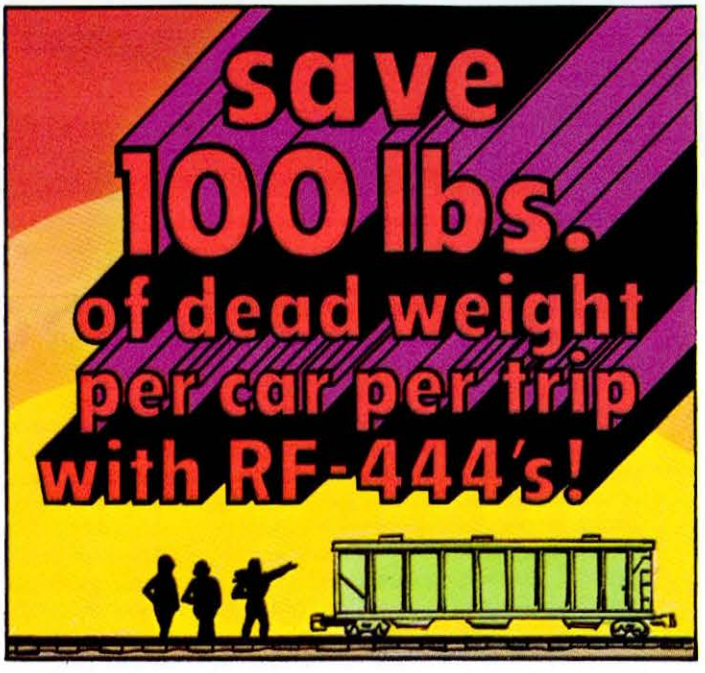

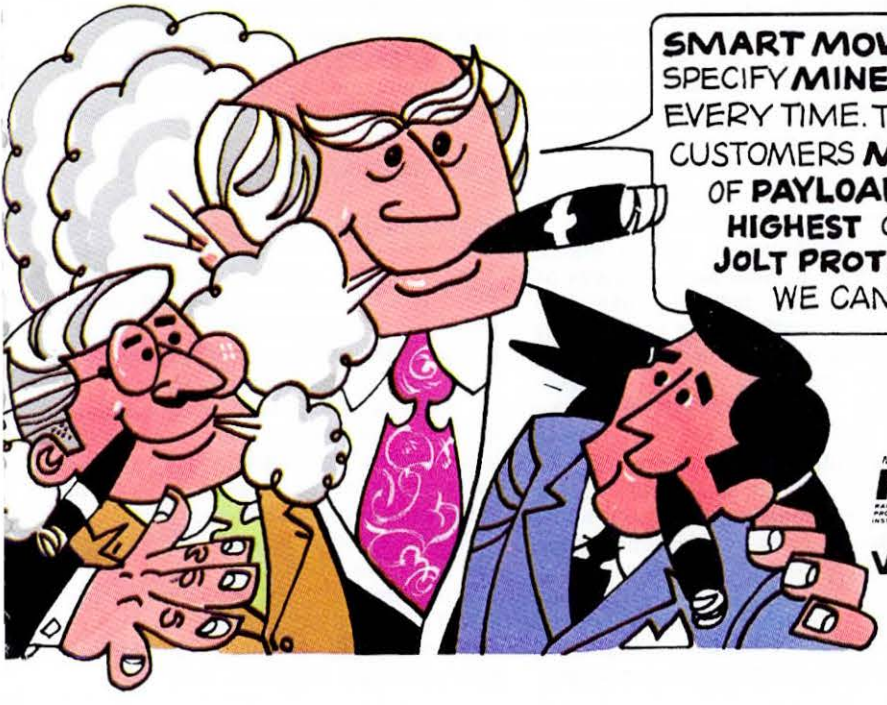
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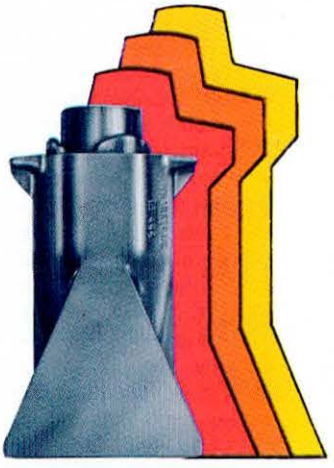

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Circle 16 on coupon page 69

WAFFLE SIDES will be option of Southern in its order for 1,800 of the new Pullman-Standard box cars.

P-S box car is strong, versatile

Southern Railway was not long in endorsing the new sturdier box car which Pullman-Standard unveiled at Atlanta Oct. 9. Immediately after a group of Southern shippers viewed the prototype, Southern President W. Graham Claytor, Jr., revealed that his road had placed a $35 million order for 1,800 units. The announcement of the order served to show the versatility of the new design since there will be a variety of interior arrangements, door openings, cushioning systems and even 70- and 100-ton capacities in Southern's cars. Actually, Pullman has also 40- and 60-foot versions although Southern did not opt for these lengths in the group of cars which are to start rolling out of the P-S plant at Bessemer, Ala., in January.

● **Proved and improved.** "The general-purpose box car that railroads have been using for years—and will be using for many more—has a great many useful and time-proven features," observed Claytor. "We are delighted to see become standard on a new line of general-purpose cars those strengthening features we have requested and have been buying from Pullman-Standard in recent years. Often we have been willing to pay a premium to get the kind of cars we need for a particular use.

"Transportation is a wider ranging partnership that we sometimes realize," continued Claytor. "Pullman builds cars. We buy them. Shippers use them to move goods and millions of people benefit because of it. Each of us involved in transportation has a real interest in the economic health and well-being of the other parties to this nation-wide enterprise.

"If railroads cannot run their businesses successfully and earn an adequate return, we won't be buying many freight cars. In some years, some of us won't be buying any freight cars at all. Carbuilders must have a viable operation—able to earn enough to finance improvements if they are to be in a position to design and build the cars we need when we can afford to buy them. We can readily find the same factors at work in the relationship between transportation companies and customers."

Elwyn T. Ahnquist, P-S president, stressed that "without the receptivity of forward-looking railroads like the Southern—railroads willing to put their faith and their money into car designs for better and more efficient service—many new ideas would wither on the drawing board before they ever saw a shipper's loading dock."

The new box car, according to Ahnquist, is the strongest P-S has ever built. Strengthening came in sides, ends, door posts and underframe. Special attention was given to the sides. Wider, deeper side posts extend down on the side-sill reinforcement for added strength. A new, stronger side plate (the top lengthwise structural member) eliminates need for reinforcement in normal doorway openings. The side-sill reinforcement extends from end to end of the car.

● **Stronger ends.** Ends of the new car utilize two seam-welded steel panels which have 4-in.-deep corrugations across their full width and are continuously welded at the sides to stronger box-section corner posts.

Among the underframe features are a new bolster web to reduce stress concentrations, forgings in the draft gear area to increase strength, and single-contour bolsters and a new floor stringer arrangement.

Having arrived at the desired strength levels, P-S then made sure that there was the flexibility needed to fit a variety of shipper and railroad requirements. There can be optional wood or the standard P-S nailable steel flooring, welded in place while the car is inverted to enhance welding processes. The interior can be built unlined, wood lined, or with waffled sides, and may be equipped with lading anchors, belt rails or bulkheads. The underframe accommodates standard draft gears, sliding-sill cushioning or end-of-car cushioning.

While car width remains at a constant 9 ft 6 in., the Plate B car will have a 10 ft 7 in. interior height with a clear door height of 9 ft 11 in.; the higher Plate C car measures 11 ft inside height and the door opening is 10 ft 4 in. high. ■

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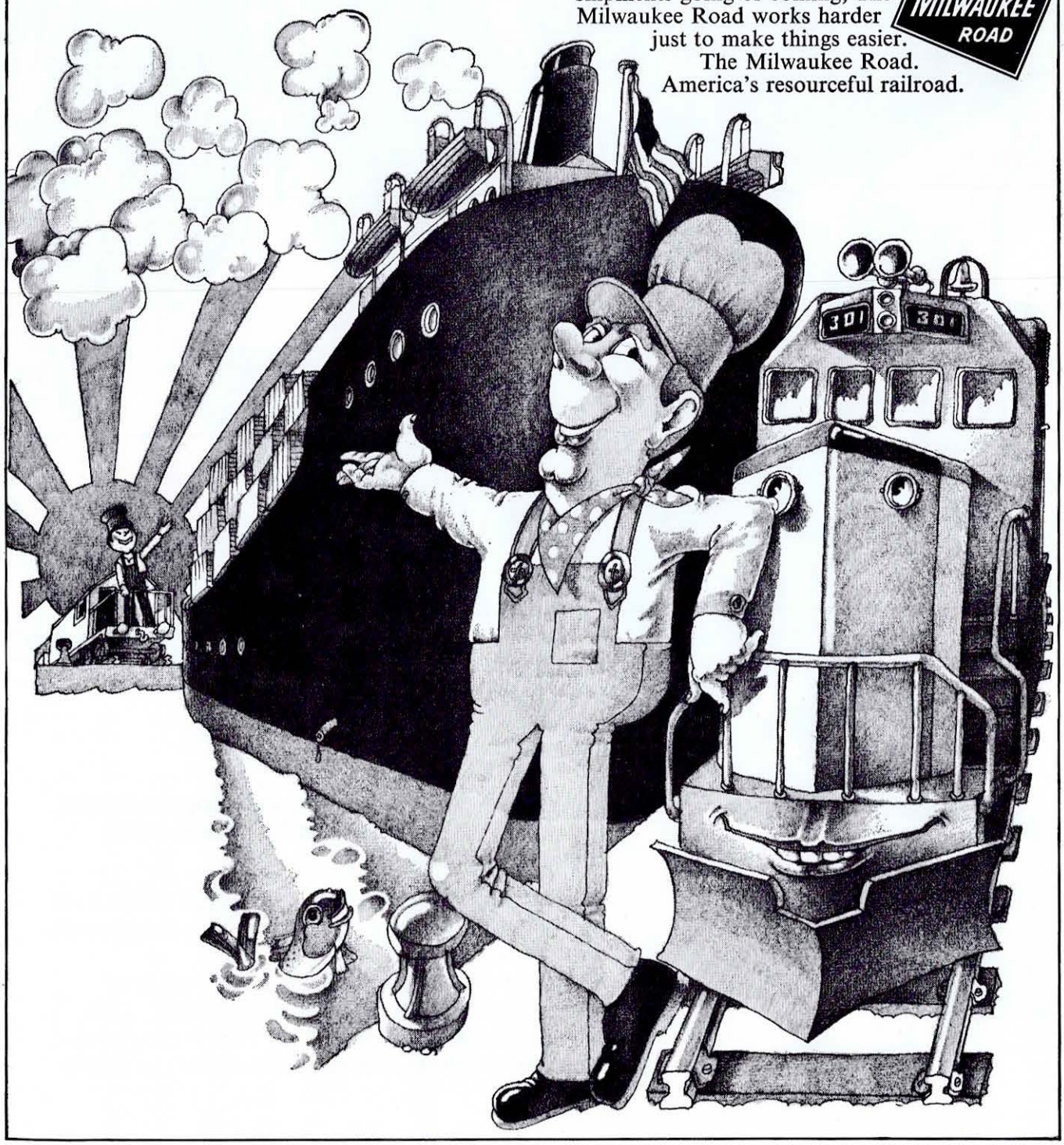
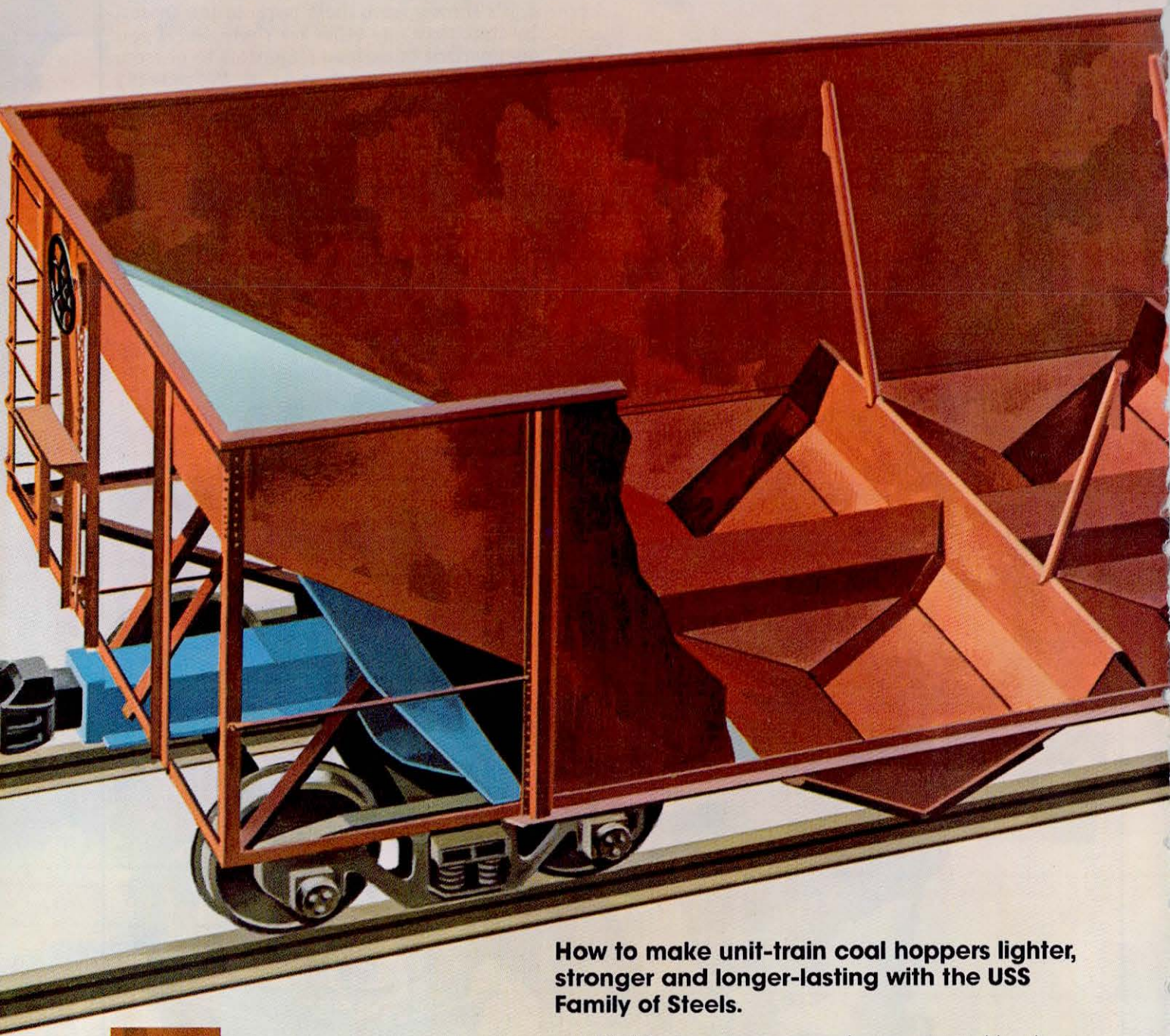


Upping the open-



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USS TRI-TEN Steel for structural members not touching lading.

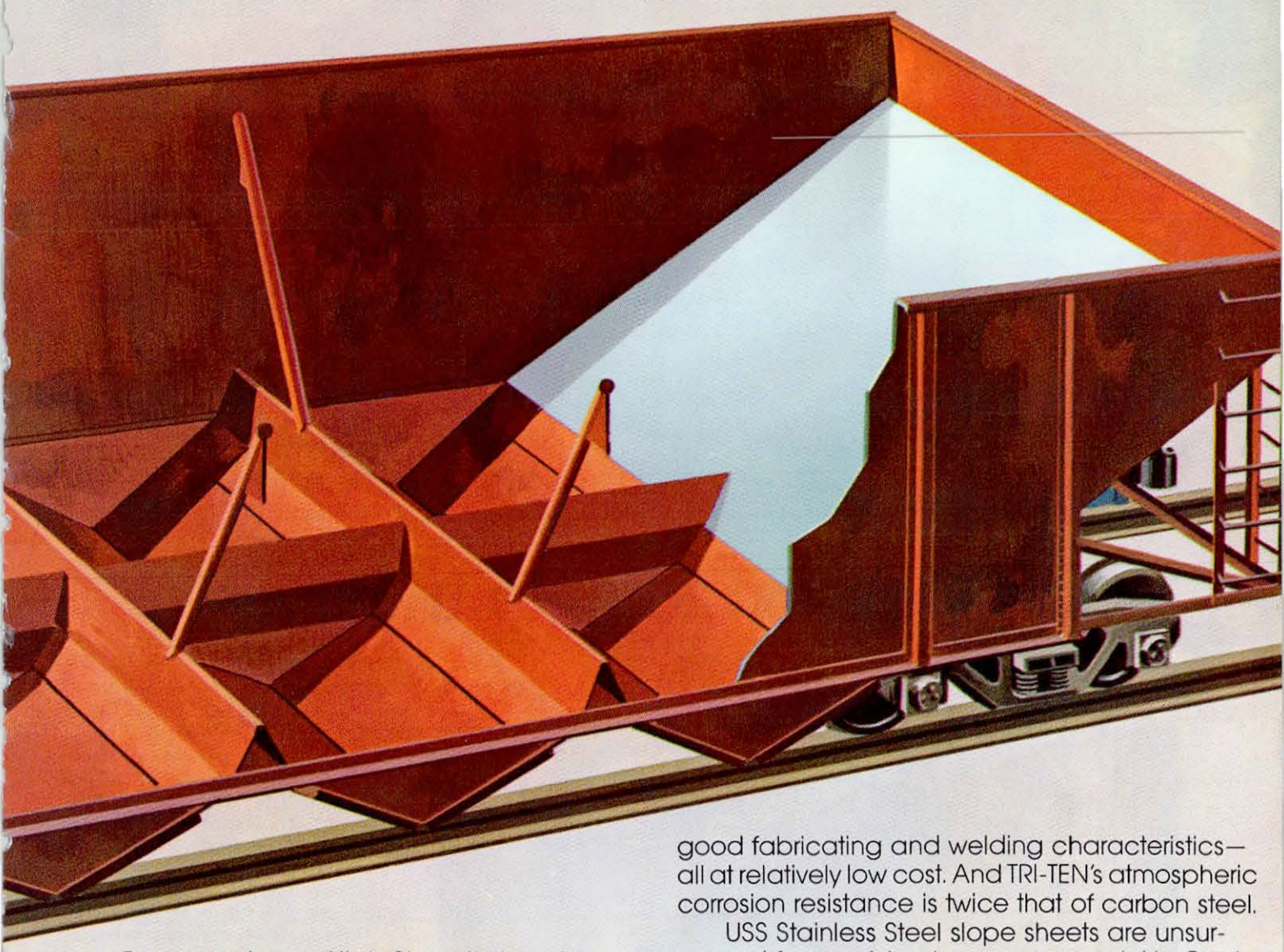
USS Stainless Steel for "slideability" on slope sheets.

How to make unit-train coal hoppers lighter, stronger and longer-lasting with the USS Family of Steels.

Unit-train cars may make as many trips in a couple of weeks as cars in regular service make in a year.

But with proper use of the USS Family of Steels, you can build these cars lighter...give them greater strength to haul higher payloads... and watch them outlast others in this punishing service.

top's payload.



For example, our High-Strength, Low-Alloy steels let you design with thinner body sheets and lighter structural members. So you haul less car. And more payload.

USS COR-TEN A Steel is 40 per cent stronger than structural carbon steel. It resists atmospheric corrosion up to eight times better. If painted, it gives up to twice the paint life. But USS COR-TEN A Steel doesn't have to be painted: it forms a tight oxide coating on unpainted surfaces—even "heals" itself when scratched.

Measurements on open-top hopper cars over the past 30 years show COR-TEN A Steel outlasts copper-bearing steel by at least 50 per cent.

USS TRI-TEN Steel reduces car weight. You get high strength and toughness, as well as good fabricating and welding characteristics—all at relatively low cost. And TRI-TEN's atmospheric corrosion resistance is twice that of carbon steel.

USS Stainless Steel slope sheets are unsurpassed for emptying hopper cars quickly. Coal flows out without interruption or shakeout under most conditions.

U.S. Steel doesn't design or build cars, but we do make fine products for their construction and for them to travel on—USS wheels, axles and rails.

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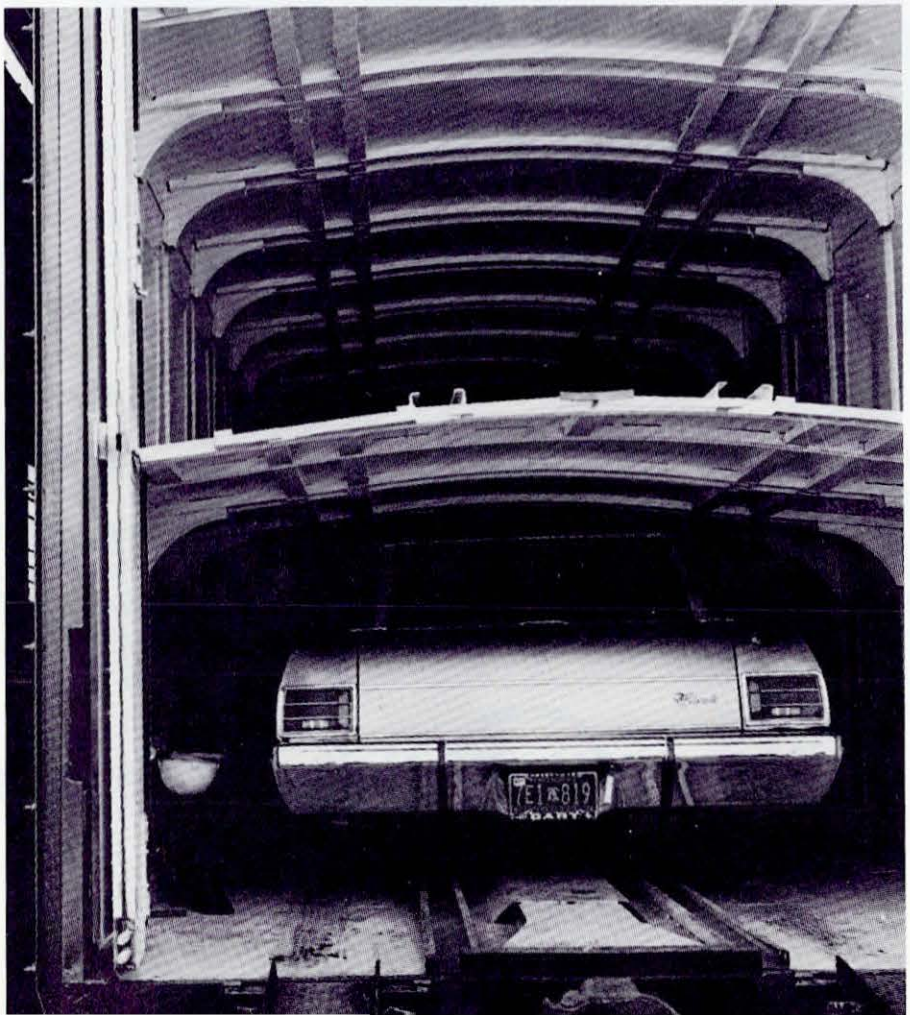
USS **United States Steel**

SINGLE-AXLE TRUCKS support the three units of the extra-length tri-level car recently completed by Greenville Steel Car.

New dimension to auto transport

STATION WAGONS fit lower level of Autoguard; all decks are wide enough, because of articulated construction, for easy exit of drivers after loading.



Following testing to confirm its stability in heavy freight trains and its resistance to undesirable rolling, Southern's new tri-level Autoguard is ready for its ultimate test—in the marketplace. In this articulated 129-foot closed car, says Southern, is the potential for another revolution in rail handling of new highway vehicles.

Certainly the car design is a revolutionary one for American rail service. The three modules, each approximately 40 feet long and mounted on pairs of single-axle trucks, are permanently joined into a vehicle that has fully 50% more capacity than existing 89-foot automobile rack cars. Segmenting a car half again as long as those which have put more than half of all new automobile transportation on the rails promises to make it possible to hold the line on individual vehicle transportation costs.

● **Offsetting capital cost.** One Southern spokesman has predicted that Autoguard could do for auto handling what the Big John covered hopper did for railroads in the handling of grain. Since the new car handles 18 full-size automobiles—half again as many as the 12-vehicle capacity of the standard tri-levels—there is the potential for offsetting the increased capital cost with improved carload revenues.

For two years Southern has been working to develop a freight car that could offer an economical alternative to

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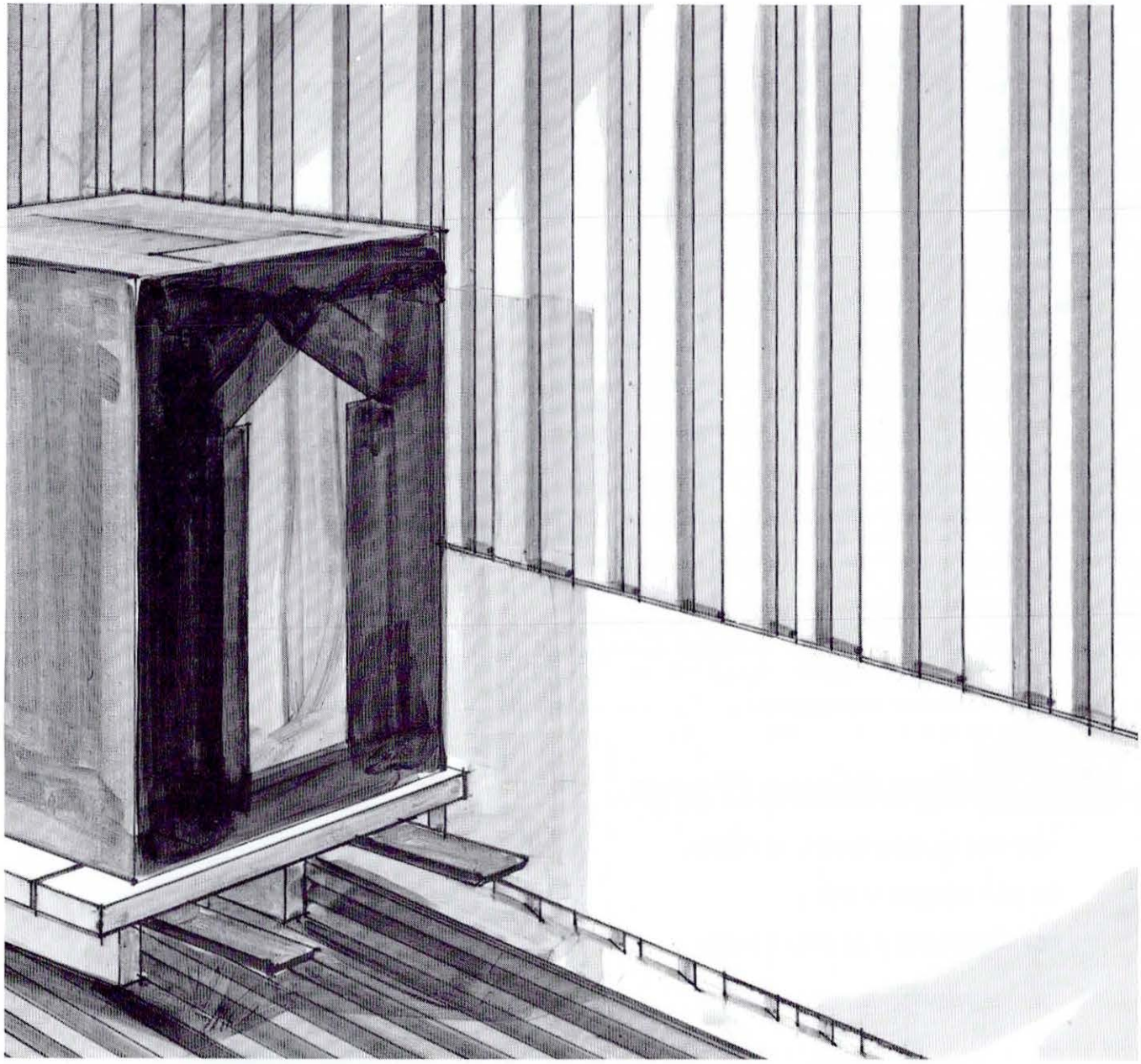

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You'll find a durable, long lasting panel—does not dent and tear, expand and contract like metal—protects your vehicle—prevents costly downtime.

You'll find easy cleaning—dirt and grime are quickly eliminated by steam or any ordinary washing method, protecting your perishable cargo—accepted by U. S. D. A.

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Circle 17 on coupon page 69

the open-deck rack car. There has been a growing loss-and-damage bill associated with today's means of rail transportation and auto makers are pressuring railroads for some type of closed car (RA, June 25, p. 42).

Of prime importance to auto manufacturers, dealers and railroads, says Southern, Autoguard provides complete protection from vandalism and theft.

In engineering its new auto transporter, Southern turned to the four-unit 260-ton-capacity coal hopper with single-axle trucks which had been turned out in 1965 (RA, Aug. 9/16, 1965, p. 34) by Aeronca Manufacturing Co. While the 40-foot units with 28-foot wheelbase utilized in the Autoguard are considerably longer than the modules of Southern 100 (the big hopper which had been designed exclusively for unit trains), the new closed car has all the advantages of articulated design.

These include greater carrying capacity, greater inside clearance for loading and unloading, and the ability to negotiate sharper curves and provide improved vertical ride, including greater stability.

Autoguard can still be loaded and unloaded at existing facilities. As compared with the 8- to 10-year life of rack cars, Southern sees Autoguard lasting up to 20 years. Since it is compatible with the existing fleets, of bi-level and tri-level cars, it could be phased into service without costly terminal modification.

● **Single-axle trucks.** Southern's preliminary designs were turned over to Greenville Steel Car for engineering and construction of two prototype cars. The car structure is high-tensile steel assembled over conventional center sills. The trucks are those engineered by National Castings for Southern 100 and have standard axles, roller bearings and wheels. The truck pedestal frames incorporate hanger brackets for the clasp-type tread brakes supplied by Davis Brake Beam. This brake rigging is actuated by a New York Air Brake air-over-hydraulic brake system.

The outer ends of the car are fitted with Freightmaster 15-inch-travel end-of-car cushioning units. Between the modules are drawbars secured in short-travel rubber cushions. Stanray developed especially for this car the articulated cover and bridge plate arrangement which spans each of the inter-module joints. Initially it had been planned that these enclosures would be a flexible material much like that used for passenger coach diaphragms. Instead, the articulted cover is all metal and spring loaded so that there is sufficient flexibility for the car to traverse a 150-foot-radius curve.

Outer ends of the car are fitted with laminated tri-fold doors supplied by Youngstown Steel Door. These doors fit into pockets along the insides of the car, giving access to all three decks simultaneously. The doors are so light that they may be opened or closed easily by one man standing on the ground. Once loaded, the car's doors may be closed and sealed or padlocked.

The car weighs 166,000 pounds and has a payload of 90,000 pounds. Inside length is 124.8 feet and inside width is 10 feet. The car is 10 feet 8 inches over its outside, approximately 20 inches greater than is possible with the longer single-unit auto-rack cars.

The interior of Autoguard is painted white without supplementary light other than that which enters the opened ends and comes through the small gaps at the articulated cover.

The bottom deck is 2 inches higher than the other two allowing station wagons to be loaded on that level. There are conventional Whitehead & Kales low-profile auto tiedowns on all the decks. Full length ladders at all four corners of the car permit personnel involved in loading and unloading to have easy access at each of the decks once the end doors have been rolled into opened position.

Calculations have shown the loaded center of gravity of Autoguard to be about 94 inches—well within the current AAR limit for freight cars. Initially Southern will not have the two prototypes in interchange service. ■

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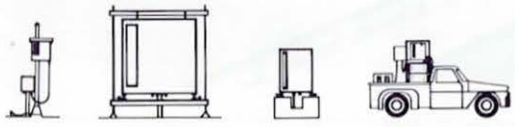

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You'll save money through reduced clerical costs, improved car handling and utilization.

We can have this system up and running in 60 days. It'll pay for itself within 6 months.

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Circle 20 on coupon page 69

TOFC and COFC: Big new growth

(continued from page 34)

quarter of the year is about 10-12% above the similar period of last year. Sizable sums are being spent on terminal improvements. Facilities at Charlotte, Charleston, Savannah and Orlando are targets of these improvements. Meanwhile, another three terminals are on tap for improvements. Among the additions at the Orlando terminal is a new side loader which will enable handling of containers. Although SCL is participating in mini-bridge, container traffic doesn't represent very much in the way of volume. TOFC, on the other hand, is big business (SCL is the nation's second largest originator of TOFC traffic with 6.7% of the total) and SCL is gearing itself to handle a lot more.

Southern Pacific. A "very strong" piggyback year, 1973 should see an 18-20% increase in TOFC and COFC volume, and just about a like increase in piggyback revenues. The outlook for next year continues bright—up maybe 8-10%. Within the next two years, considerable terminal improvement activity will take place at a number of locations. Oakland, Houston, New Orleans and Memphis will be scenes of improvements. "Piggyback could easily grow to the point where it represents 20-25% of the railroad business," says T.A. Fante, general manager-intermodal traffic. "There's no question but what our energy crisis, concern for the environment and concern for increased costs of highway maintenance could swing even more piggyback traffic our way. Really, we (the railroads) are a 'natural' for solving some of our national problems."

Missouri Pacific. "Piggyback performance this year has been great, just great," says C.T. Groton, Jr., general manager-merchandise operations. Up 36% over last year, piggyback volume at the end of August had already exceeded the volume for all of 1972. Participation in mini-bridge, which helped send the COFC portion of piggyback up a whopping 148%, certainly helped the cause. And, what about '74? Anywhere from 7% to 10% above '73 is the forecast. There is a chance, however, that a trailer shortage could crop up and cause a problem. Terminal improvements will be seen in New Orleans, Houston and San Antonio. An all-new terminal is planned for Shreveport, La.

● **Plan II½ the leader.** Of the various piggyback plans offered by the railroads, Plan II½ is continuing to exhibit a lot of strength, in both volume and revenues. Bolstered by mini-bridge, Plan III is increasing in importance on a number of roads. There is a feeling in some corners, however, that the railroads are performing more service for mini-bridge than they do for other Plan III or Plan II½ traffic while at the same time drawing in less revenue.

In order to help railroads keep up with the pace of piggyback growth this year, equipment suppliers and lessors have really been double-timing it. Trailer Train, for example, has ordered 7,903 flat cars—many of them for piggyback operation—since the first of the year. Carbuilders are producing flat cars at a rapid pace, and one of them, Pullman-Standard, opened up a new multi-million dollar flat-car production line recently at its Bessemer, Ala., plant.

Trailer builders also have heavy backlogs. First-half shipments of trailers reached 82,632, up 16.3% over the like period of 1972, reports the Truck Trailer Manufacturers Association. Meanwhile, container deliveries reached 10,777, up 17.5%, and container chassis production for the first six months hit 6,965, up 23.5%.

The high level of the national economy is probably the main reason for heavy buying, but something else—Motor Vehicle Safety Standard 121—is thought to be exerting a lot of influence, too. MVSS 121, a federal regulation requiring antilock systems and

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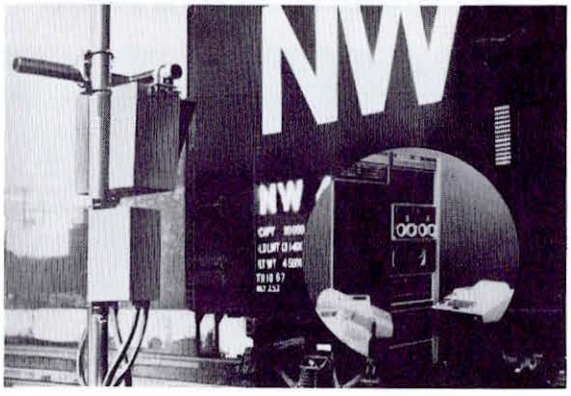

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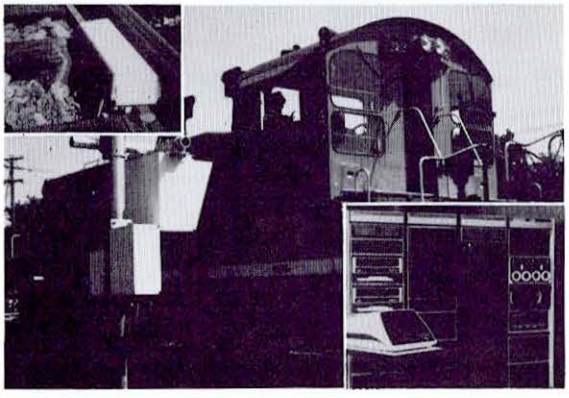
TERMINAL MANAGEMENT



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Circle 22 on coupon page 69

automatic parking brakes on on-highway air-brake equipped trucks, buses and trailers (including piggyback trailers), goes into effect on September 1, 1974. Since the required controlling devices will probably increase the trailer cost by upwards of $600, purchasers are believed to be trying to build up their fleets before this deadline. *(See page 28.)*

As in Canada, there is a great concern by U.S. railroads over the trend of highway vehicle lengths. Presently, the 40-ft trailer seems to be the standard, but 45-ft trailers appear to be gaining in popularity among truckers. Of course, a pair of 45-ft trailers won't fit aboard an 89-ft flat car. A 45-ft and a 40-ft trailer will fit snugly aboard, however, and Trailer Train and the railroads have been preaching use of such a concept.

● **Are the double bottoms coming?** Also of concern to U.S. railroads is the trend of highway motor carriage toward hauling of double bottoms—a pair of 27-ft, 28-ft or 28½-ft trailers. Such a trend might force the railroads to think in terms of three-hitch piggyback flat cars at some point in the future. Of course, flat cars purchased today are expected to still be around on into the 1990s, which means that trends must be analyzed very closely.

Perhaps because it seems to have such an exciting future, piggyback has a way of stirring up refreshing ideas on how to make greater use of some of railroading's distinctive advantages. At a conference earlier this year, CN's R.E. Lawless, vice president-freight sales, took a long look into the future of piggyback and came up with these interesting possibilities:

—End-of-assembly containers built into production flows.

—A combination of containers and 150-200 mph AP-type trains.

—Pick-up and delivery or terminal movement by several modes—conveyors or helicopters.

—Underground subway systems utilized for containers in off-peak hours, for pick-up and delivery services.

—Specialized containers inside of which manufacturing and chemical processes could take place in transit.

—Disposable containers (no deposit, and no littering, either.)

Railroads across the continent are spending millions this year on terminal facilities in an effort to match stride for stride the tremendous growth of piggyback traffic. An example of these efforts is Illinois Central Gulf's new $2.5 million IMX (Intermodal exchange) terminal in New Orleans which will have its official opening on Nov. 5.

Located on a 16.6-acre riverfront site formerly occupied by a scrap yard and abandoned warehouses, the new facility features two large Drott gantry cranes, four main loading and unloading tracks, plus additional off-track space for the parking of 228 trailers and containers.

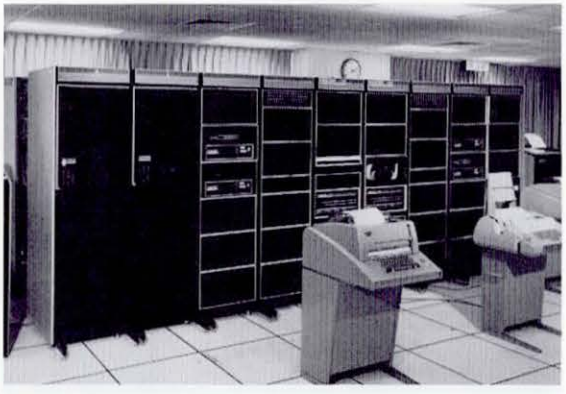
This newest of ICG terminals brings to three the number which can handle COFC traffic as well as TOFC. The others are located in Chicago and Memphis. Altogether, ICG has 76 points in its 13-state, 9,700-mile system at which TOFC traffic can be handled.

Each of the four tracks in the New Orleans IMX holds 18 89-ft piggyback flat cars. This means that up to 144 trailers or containers could be loaded or unloaded without moving any of the cars. The facility replaces another one located at ICG's Mays Yard to the west of the city, and it has the advantage of being able to receive cars directly without switching through Mays Yard.

Another of the new terminal's advantages is that it is more strategically located. Industrial plants are close by, as are wharves, which should help to reduce dock-to-dock transit time.

The increasing numbers of containers handled through the Port of New Orleans should help assure the success of the new IMX. Ranked number two among all U.S. ports in dollar value and tonnage volume of foreign commerce, the Port of New Orleans is called upon by 4,000 ships each year. It is, of course, a notable participant in the mini-bridge program. ■

FRONT END PROCESSING



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Circle 25 on coupon page 69

People in the News

James R. Wolfe
C&NW

Robert W. Russell
C&NW

R. David Leach
C&NW

Thomas W. Eagan
D&H

Howard W. Hontz
D&H

Vincent J. Baione
C-E

ARKANSAS & LOUISIANA MISSOURI.—**Herman B. Wilson** named general manager, to succeed **W.R. Laing,** vice president and general manager, who retired Oct. 1 after more than 46 years' service.

BURLINGTON NORTHERN.—**D.E. Wagers** named director of planning, manufactured products, and **B.E. Mehloff,** terminal trainmaster, Minnesota division, St. Paul.

CARTER.—**R.B. Barrowman** appointed general superintendent-transportation, succeeding **W.H. Freeman,** retired.

CHESSIE SYSTEM.—**Hays T. Watkins,** president and chief executive officer, Cleveland, elected chairman, succeeding **Cyrus S. Eaton,** retired. Mr. Watkins will remain chief executive. **John W. Hanifin,** executive vice president, succeeds Mr. Watkins as president.

Fred R. Toothman, director of coal development, appointed assistant vice president-coal development, with headquarters as before at Huntington, W.Va. **George M. Riley,** director of coal rates, appointed assistant vice president-coal rates, remaining at Baltimore.

CHICAGO & NORTH WESTERN.—**James R. Wolfe,** vice president-labor relations, corporate industrial engineering and staff projects, elected vice president-operations, to succeed **Harold L. Gastler,** resigned. **Robert W. Russell,** vice president-personnel, elected vice president-personnel and labor relations. **R. David Leach,** vice president-systems and information services, elected vice president-systems and corporate industrial engineering.

DELAWARE & HUDSON.—**Thomas W. Eagan,** comptroller, elected vice president and comptroller, Albany, N.Y. **Howard W. Hontz,** general superintendent, elected vice president-operations.

James R. Williams, superintendent, Albany, appointed general superintendent and has been succeeded by **Joseph G. Cassick,** superintendent, **Greenwich & Johnsonville,**

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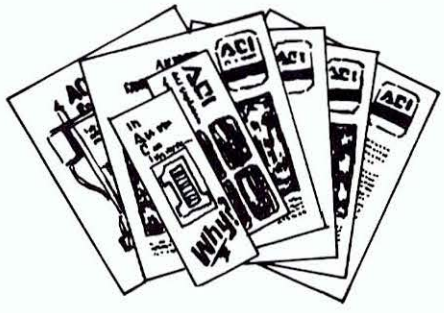

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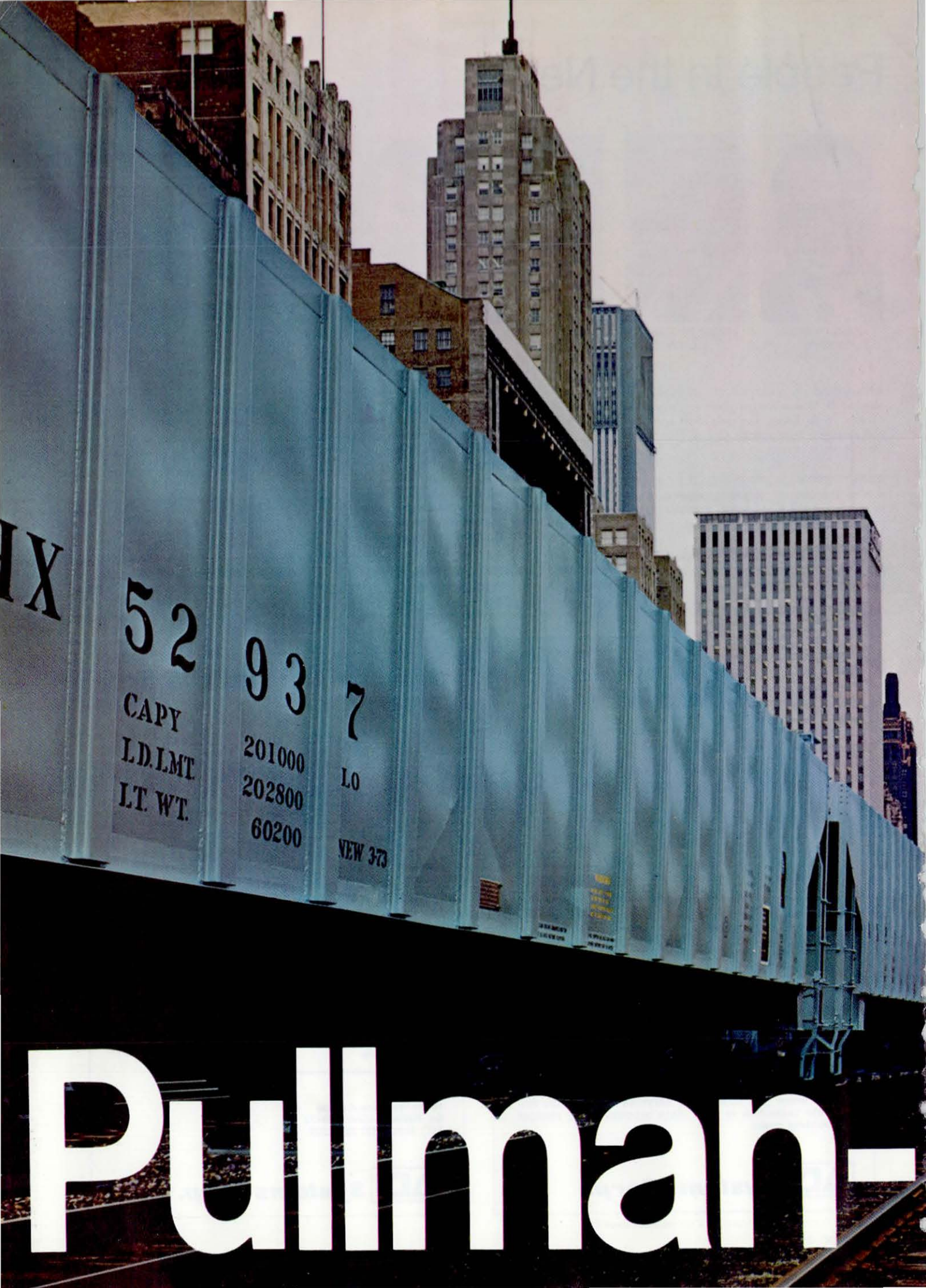

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Bernard Phillips, manager pricing and marketing, Albany, appointed assistant vice president-pricing and marketing. **William O. Peairs,** director marketing research, named manager of marketing. **Charles H. House, Jr.,** assistant manager pricing and marketing, appointed manager of pricing. **Francis J. Smith** appointed freight traffic manager, Boston, Mass. **Wallace E. Barrows** named New England sales manager, Boston.

DENVER & RIO GRANDE WESTERN.—**C.D. Brainard,** director marketing, Denver, appointed assistant vice president-market development there. **J.R. Cook,** manager pricing, named general market development manager. **V.E. Haas** and **D.F. Pedersen,** assistant managers pricing, Denver, appointed managers-market development there. **R.A. Nowak,** assistant manager pricing, Chicago, named manager-market development there. **W.T. Boettigheimer** and **C.M. Haefner** appointed managers-customer services at New York and Chicago, respectively.

The following appointed regional managers-sales: **J.M. Sinclair,** St. Ann, Mo. (St. Louis); **J.W. Sample,** Kansas City, Mo.; **E.D. Burke,** Los Angeles, Calif.; **A.F. Holman,** San Francisco; **F.S. Pruente** and **W.E. Mullins,** both at Chicago.

A.D. Cox and **A.L. Thiessen** appointed assistant to regional manager-sales, Denver and Salt Lake City, Utah, respectively. **G.L. Nicolin** named market director-automotive, Southfield, Mich. (Detroit). **D.J. Lewis** appointed account executive-forest products, Chicago.

ILLINOIS CENTRAL GULF.—**Henry D. Granberry,** superintendent, St. Louis division, Carbondale, Ill., transferred to the Mississippi division, Vicksburg, Miss., to succeed **Edmond L. Pearson,** named general superintendent-car control, Chicago.

Mr. Pearson succeeds **Ivan B. Hall,** appointed general superintendent-transportation, succeeding **Arthur M. Dickerson.** Mr. Dickerson becomes superintendent, Alabama division.

ILLINOIS TERMINAL.—**William I. Pierce,** traffic manager, Western Region, Portland, Ore., has retired after 28 years of railroad service, 26 of which were with the IT.

LEHIGH VALLEY.—**Thomas F. Williams,** vice president-sales, New York, retired Sept. 30 after 43 years of service with the LV. **John A. D'Auria,** freight sales manager, Newark, promoted to director-intermodal sales and service there, succeeding **William H. Coachys,** who retired Sept. 30 after 46 years' service. **W.H. Heine,** freight sales manager, New York Region, promoted to eastern sales manager. **J.J. Medley** and **J.R. Tighe** promoted to freight sales managers at New York and Newark, respectively. **Robert J. Tracy** promoted to district sales manager, Newark.

MISSOURI PACIFIC-TEXAS & PACIFIC.—**Robert J. Grant** appointed assistant regional sales manager-Pacific Region, San Francisco.

L.A. Daniels, L.R. Goodwin and **R.N. Staats** named sales managers, Mobile, Ala., Birmingham, Ala., and Odessa, Tex., respectively.

SANTA FE.—**Merle F. Smith,** assistant to superintendent of transportation, Argentine Yard, Kansas City, Kans., appointed manager-freight train operations, Chicago.

F.L. Rees, district engineer, Topeka, Kans., named engineer of track, Chicago.

SEABOARD COAST LINE-LOUISVILLE & NASHVILLE.—The following appointments have been made: **E.C. Watts,** district sales manager and **D.W. Pope,** general agent, Albany, Ga.; **R.D. Beasley,** district sales manager and **F.E. Childers,** general agent, Brunswick, Ga.; **R.G. Harris,** general agent, Clewiston, Fla.; **H.J. Griffin,** district sales manager and **J.L. Allen** and **G.E. Hinnant,** general agents, Fort Lauderdale, Fla.; **M.J. Musial,** general agent, Fort Myers, Fla.; **J.L. Huff,** district sales manager, Fort Pierce, Fla.; **H.E. George,** district sales manager, Gainesville, Fla.; **W.F. Carpenter, Jr.,** general agent, Gastonia, N.C.; **G.A. Holzberger,** assistant general freight agent, **M.T. Smith, Jr.,** district sales manager and **R.F. Goodson,** general agent, Greenville, S.C.; **F.L. Fairfax,** district sales manager, Greenwood, S.C.; **K.P. McDonald,** district sales manager, Kingsport, Tenn.; **W.T. Glover,** district sales manager, Lakeland, Fla.; **T.H. Jones,** manager, and **R.J. Fletcher,** assistant manager, phosphate sales & service, Mulberry, Fla.; **R.A. Beasley,** general agent, Ocala, Fla.; **J.K. Herring,** district sales manager, Palatka, Fla.; **B.W. Edenfield,** district sales manager and **W.M. Henry,** general agent, Palmetto, Fla.; **Fred G. Doss,** general agent, St. Louis, Mo.; **J.A. Shipman,** district sales manager and **F.R. Wiggins, Jr.,** general agent, St. Petersburg, Fla.; **A.E. Reynolds,** district sales manager and **J.E. Griffin,** general agent, Spartanburg, S.C.; **J.M. Council,** district sales manager and **J.R. Spencer,** general agent, Tallahassee, Fla.; **Kenneth L. Meredith,** district sales manager, Tulsa, Okla.; **W.D. Woodson,** district sales manager, West Palm Beach, Fla.; and **D.L. Edwards,** general agent, Winston-Salem, N.C.

SOUTHERN PACIFIC.—**John N. Albertson,** general superintendent of communications, promoted to assistant to vice president. Mr. Albertson's successor is **Merle C. Hanton,** assistant general superintendent of communications. Mr. Albertson will continue as vice president and general manager, **Southern Pacific Communications Co.**

Lonnie M. Fox, first assistant manager of labor relations, named assistant vice president-personnel, San Francisco, succeeding **Samuel B. Burton,** who retired in August.

WESTERN PACIFIC.—**Thomas R. Green,** assistant manager-labor relations, appointed director-personnel, San Francisco. **William F. McDonnell** named assistant manager-labor relations, non-operating employees, and **Kenneth R. Peifer,** operating employees. Mr. McDonnell was formerly president, **Electrofilm Corp.,** Garland, Tex., and Mr. Peifer, labor relations assistant, **WP.**

WESTERN RAILROAD ASSN.—**Robert F. Moriarty,** assistant manager-operation, Data Services Division, named manager of the division.

YOUNGSTOWN & NORTHERN.—**M.P. Coessens** appointed trainmaster, Youngstown, Ohio. **S.A. Maluso** appointed general mechanical supervisor.

INDUSTRIAL TRAFFIC

Vincent J. Baione, manager, export/import section, **Combustion Engineering Inc.,** has been appointed to the newly created position of manager, corporate transportation planning and coordination, Windsor, Conn.

Lou B. Harmon has been named executive vice president and general manager, **TCFCA, Inc.,** to succeed **John C. Allen, Jr.,** who retired Sept. 25.

Harold F. Simmons, assistant to the traffic manager, **Laclede Steel Co.,** has been appointed traffic manager, succeeding **Raymond W. Meckfessel,** retired after 42 years of service.

George L. Brannen, traffic manager, **Union Camp Corp.,** Savannah, Ga., has been promoted to manager of transportation operations, Corporate Traffic Department.

William J. Cochran has been appointed manager-transportation services, Corporate Physical Distribution Department, Chemicals and Plastics Group, **Hooker Chemic Corp.,** Niagara Falls, N.Y. **Robert A. Evans** has been named manager-transportation pricing.

J. Robert Hoon has been named general traffic manager, **Aluminum Co. of America,** Pittsburgh, Pa. Mr. Hoon had been manager, export-import division, general traffic department, New York.

SUPPLIERS

Robert H. Hood, Jr. has been named vice

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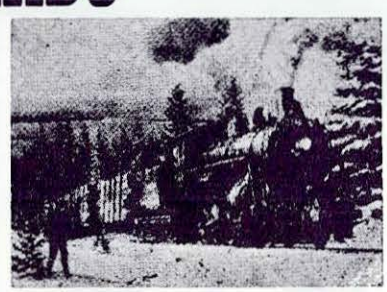

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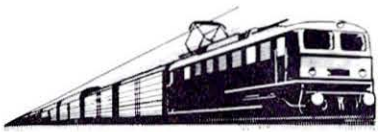

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president, government affairs, **Pullman Incorporated,** Washington, D.C. He was formerly deputy assistant administrator for legislative affairs, **National Aeronautics and Space Administration,** Washington.

C.B. Ramsdell has been elected vice president and group executive, **WABCO Transportation Systems Group, American Standard Inc.,** Pittsburgh. Mr. Ramsdell succeeds **Keith Bunnel,** who has been elected vice president and group executive of **WABCO Westinghouse,** Brussels, Belgium. Mr. Bunnel succeeds **R.W. Foxen,** who will undertake special assignments as assistant to **William A. Marquard,** president of American Standard. **Glenn Stinson,** manager of research and engineering, **Union Switch & Signal Division,** succeeds Mr. Ramsdell as vice president and general manager of that division at Swissvale, Pa.

James R. Legge, vice president-international operations, **Cardwell Westinghouse Co.,** Chicago, has retired. Mr. Legge has been succeeded by **James L. Karrigan,** with the title of general manager-international operations. It was erroneously reported in RA, Sept. 24, p. 62, that Mr. Karrigan's new title was vice-president-international operations.

A.O. Taylor has joined the McLube Division, **McGee Industries, Inc.,** Upper Darby, Pa., as a special consultant and representative for railway industry applications of the McLube line of extreme pressure grease lubricants and coatings. Mr. Taylor retired June 1 as chief mechanical officer, **Trailer Train Co.,** Chicago.

Richard C. Schoppert, general marketing manager, Central United States, **ACI Systems Corp.,** South Holland, Ill., has been promoted to director of transportation control systems sales.

Gerald P. Buccino has been elected vice president-finance, **Stanray Corp.,** Chicago. Mr. Buccino will also retain the title of corporate controller.

Eugene F. Makl has been appointed vice president-operations, **Howe Richardson Scale Co.,** Clifton, N.J. He was formerly vice president-manufacturing, Amphenol R F Division, Bunker Ramo Corp.

H. Robert Glavas, Jr., general manager, Ro/Ro Division, **Realco Services Inc.,** Chicago has been elected vice president of sales.

OBITUARY

Ford K. Edwards, 72, former director, Bureau of Accounts and Cost Findings, **Interstate Commerce Commission,** died Sept. 15 at his home in Naples, Fla.

James C. Ellington, 85, retired real estate and industrial commissioner, **Milwaukee,** died Sept. 15 in Galveston, Tex.

Charles H. Reade, 83, chairman of the board, **Reade Manufacturing Co.,** Lakehurst, N.J., died Sept. 23 at the Sunnyside Farms Nursing Home, Wall Township, N.J. Mr. Reade was also a member and officer of the board of directors, **Thermex Metallurgical, Inc.,** Lakehurst.

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Circle 29 on coupon page 69

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AAR's Harris describes $8-million research year

The AAR's research budget for 1974 will be slightly more than $2 million (up from $800,000 in 1970)—but "we are actually mapping out an $8-million research program," Dr. William J. Harris told a joint session of the AAR's Communication & Signal Section and the Data Systems Division in New York early in October.

Dr. Harris, who is vice president, research and development of the AAR, said the $8-million figure is derived from the association's own budget, from estimated manpower the railroads will supply, from supply-industry support in both dollars and manpower, and from Federal Railroad Administration contracts. He cited a number of specific programs:

—The train-track dynamics program is now running at the rate of $2 million a year, about one-quarter supported by the railroads, 15% direct from the AAR budget, and one-third from FRA, with the supply industry and the Canadian government providing the remainder.

—A study of the failure rate of the 28-inch wheel led to improvement in the purchase specifications which may save up to $800,000 annually.

RAILWAY SYSTEMS SUPPLIERS sponsored a well-attended exhibit (above) concurrent with recent meetings of AAR's C&S Section and Data Systems Division. More than 60 exhibited.

—Work in locomotive cab safety is continuing, including overtaking collisions where the operator is vulnerable.

—Research has now been undertaken to qualify the nature of the environmental impact of the railroad industry. In the area of noise research, the AAR worked with western railroads to define the extent to which railroads do create noise. "We've shared this information with the Environmental Protection Agency, and we believe we are very

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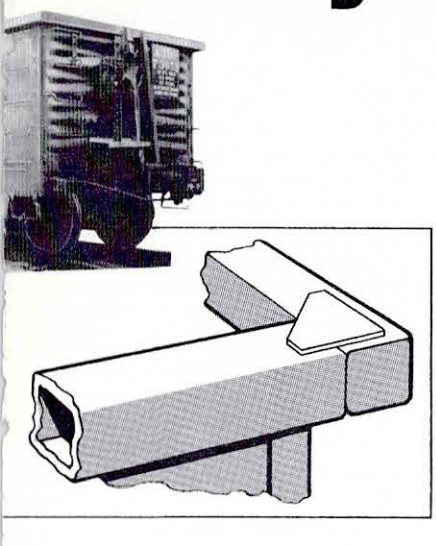

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close to seeing noise regulations that will recognize the very limited impact of noise from railroads on the community, and the very limited choices we have for improving that situation," Dr. Harris said.

—The AAR has a contract from FRA to examine the possibility of creating a better approach toward freight-car-demand forecasting. Along this line, the AAR Research and Test Department is working very closely with the Management Systems Department and the Car Service Division in connection with TRAIN II to insure that its data is used to provide more effective management of the freight car fleet.

—The AAR is monitoring work concerned with automatic car identification labels to ascertain what is causing "such a large fraction of the car fleet to be unreadable."

—AAR research efforts are being directed in at least three areas germane to railroad-highway grade crossings. Said Dr. Harris: "We have attempted to provide a system of standardization of the frequencies used in audio frequency overlay circuits. We recognize that each supplier has adopted his own set of permitted frequencies. These turn out, on careful examination, to raise some interference problems, which with the expansion of grade crossing systems could provide some serious difficulties in terms of compatibility of systems. With the help of the suppliers, I believe that we shall reach agreement within the next six months on recommendations for audio frequency overlay standards. These standards will be used in the design of all future equipment, and potentially make them susceptible for retrofitting equipment on existing afo installations."

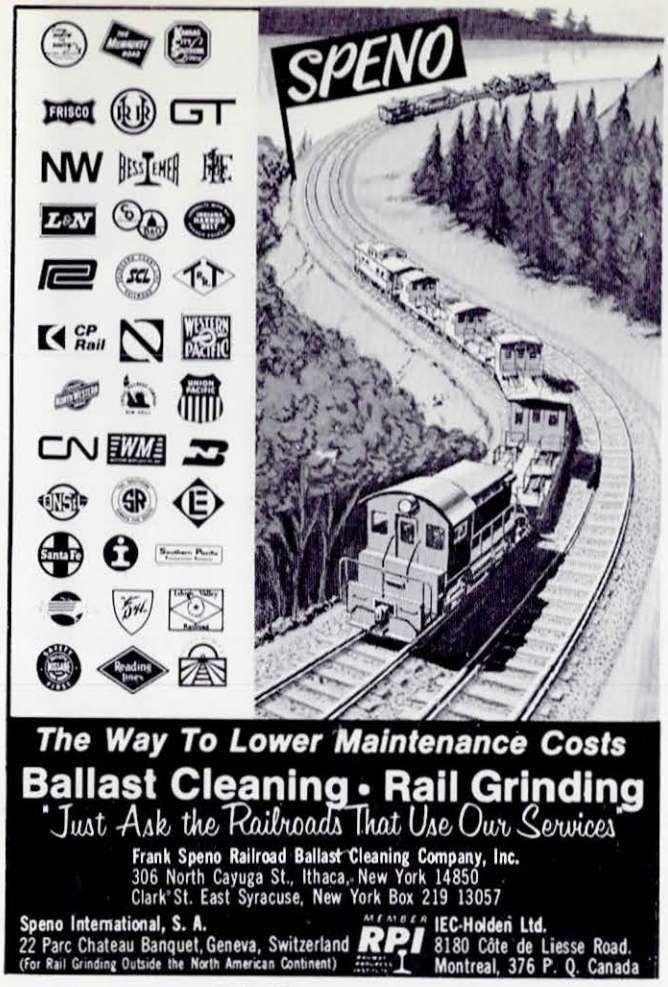
A national inventory of grade crossings is under way through a cooperative effort, largely directed by the AAR, member railroads, the various states and FRA. "We're well on the way in a matching program with about $2 million from FRA and about $2 million in terms of manpower from the railroads to create a national inventory of grade crossings, both private and public. Information on each crossing will include not only location, number of railroad tracks, lanes of street or highway, etc., but information on highway density, rail traffic and accident frequency. This information can be the basis to establish a national grade crossing protection program."

Working with the Santa Fe, AAR is engaged in a study to assist the industry in preparing effective performance standards for grade crossing systems. "I mean this in no critical way, but we, for the most part, have bought what the manufacturers have sold us in terms of grade crossing systems. Considering the number of systems that are likely to go into service over the next 4 or 5 years, and the very substantial cost that will be required to be expended by the railroads on these systems, then we have an opportunity now to be sure that the performance standards created for those systems take into account maintainability as well as the effective operation of the system, per se. We hope to anticipate governmental activities pursuing a similar objective, and indeed are coordinating our programs with them," Harris said.

Altogether, more than 600 railroad men attended the consecutive sessions of the C&S Section and the Data Systems Division at New York's Americana Hotel Oct. 1-5. They listened to speeches, discussed technical papers, participated in 15 workshop sessions and viewed millions of dollars worth of communications, signal, and data processing equipment displayed by 60 exhibitors under the aegis of the Railway Systems Suppliers, Inc.

Another key speaker was ICC Chairman George M. Stafford, who addressed the Data Systems Division. Responding to the recent rash of criticism directed

(continued on page 76)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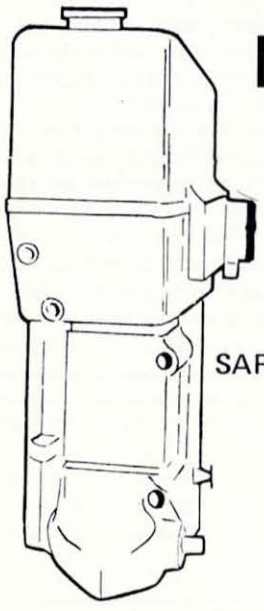

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Circle 32 on coupon page 69

How shippers rate Penn Central today

(Continued from page 37)

provement in every area, particularly "road train service and reliability."

From Harry W. Deck, director of transportation, Armstrong Cork, Lancaster, Pa. PC gets an unequivocally good rating: "Since reorganization, the Penn Central has become a very dedicated, service conscious railroad and this covers the whole gamut of their operation—car supply, switching, long and short haul improvements in service and rates. And we have found this dedication on the local level, divisional level and right up into the executive suites at Penn Center. Everyone we deal with is most helpful and in practically all instances have been successful in eliminating or correcting whatever problems we have had."

D.C. Warrington, manager-traffic, Amoco Oil Co., Chicago, reports improvement in "service reliability involving main line operations," but adds: "Branch line service continues to deteroirate, and this service will continue downhill until abandonment guidelines have been established."

James E. Duffy, staff transportation manager, Scott Paper Co., Philadelphia, gives PC top marks in every category expect L&D prevention ("fair"), commenting: "While overall transit time has shown a definite improvement, the effort by PC to personalize their transportation service has probably been the most recognizable improvement."

● **Plaudits for piggyback.** Walter L. Weart, corporate traffic manager for Tee Pak, Inc., Chicago, finds PC's TOFC service excellent: "The Penn Central has consistently outperformed its solvent rivals on our traffic. The willingness to work on TOFC problems has retained their portion of our business, and gains have been made at their competitors' expense. Their TOFC service is so reliable that our cartage agents are surprised when trailers are late. We get 48-hour service from our central Illinois plant to the East Coast."

But, Weart adds, "Carload service is as poor as TOFC service is good. The Penn Central handles about 800-900 cars per year for us and service has been slow and inconstant. Attempts to set up transit schedules on regular moves has met with frustration. While personnel are cooperative and helpful, office procedures seem to slow down due to lack of clear lines of authority."

R.B. Parietti, general traffic manager, Johns-Manville Corp., Denver, also singles out the improvement in piggyback operations without, as he sees it, commensurate improvement in carload operations. ■

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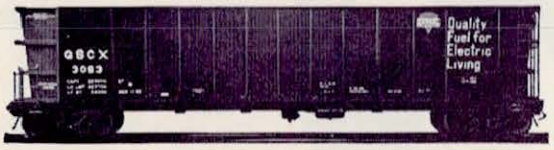

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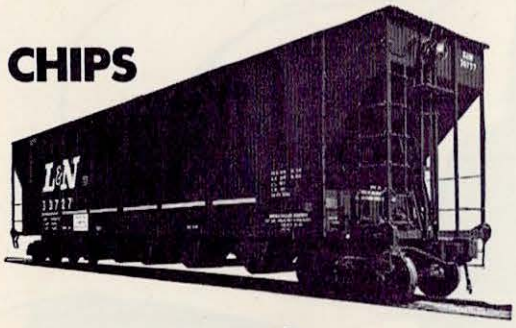
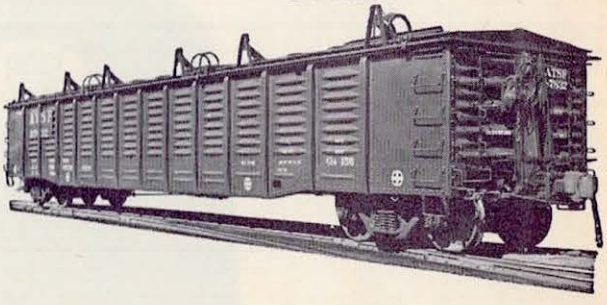
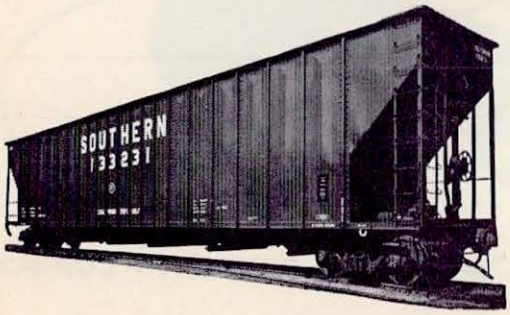
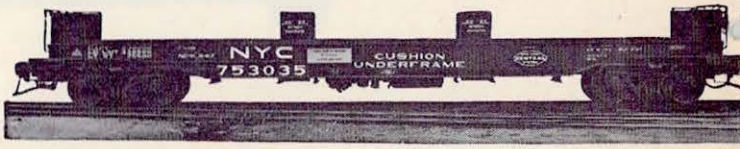


STEEL







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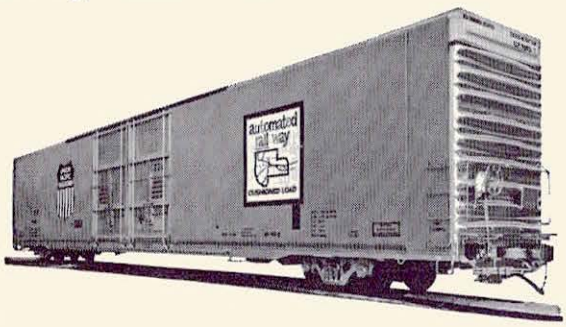

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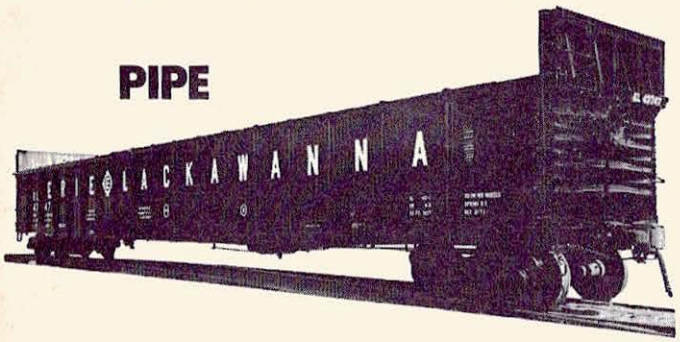

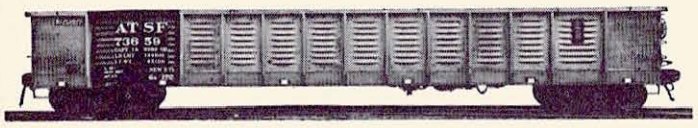

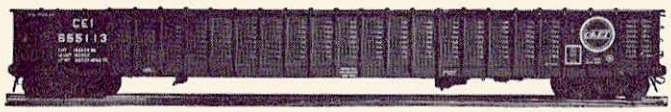

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Circle 26 on coupon page 69

Second Quarter Figures of Calendar Year 1973

(Dollar figures are stated in thousands: i.e., with last three digits omitted

Name of Road		Operating Revenues				Operating Expenses												Operating ratio		Railway tax accruals	Railway operating income		Net income	
						Maint. of Roadway and Structures			Maint. of Equipment															
		Freight	Other	Total 1973	Total 1972	Total 1973	Total 1972	Deprec. and Retirements	Total 1973	Total 1972	Deprec. and Retirements	Traffic	Transportation	Total 1973	Total 1972	1973	1972	1973	1972	1973	1972	1973	1972
Akron, Canton &	3 mos.	2,339	65	2,404	1,978	311	402	16	367	387	120	81	1,011	1,036	1,793	80.5	90.6	238	230	(46)	395	(32)
Youngstown	6 mos.	4,382	128	4,510	3,616	557	635	36	712	730	240	164	1,859	3,684	3,282	81.7	90.7	469	357	(123)	657	57
Amtrak	3 mos.	–	45,143	45,143	38,136	1,075	589	33	17,728	15,200	982	6,600	38,582	80,788	74,095	178.9	194.3	5,199	(40,844)	(40,360)	(42,678)	(42,187)
	6 mos.	–	89,157	89,157	74,430	2,419	2,675	46	31,513	32,817	2,213	11,400	75,037	153,779	146,491	172.4	196.8	10,560	(75,182)	(80,741)	(78,884)	(84,547)
Ann Arbor	3 mos.	2,917	65	2,982	2,955	457	344	22	661	603	160	38	1,378	2,692	2,608	90.3	88.3	218	72	140	(511)	(368)
	6 mos.	5,559	106	5,665	5,536	936	713	61	1,250	1,166	322	78	2,716	5,278	5,148	93.2	93.0	436	(49)	(30)	(1,120)	(1,012)
Atchison, Topeka	3 mos.	222,502	10,068	232,570	204,988	39,841	35,978	3,105	44,097	42,297	11,051	5,318	89,388	189,043	165,411	81.01	80.69	20,744	22,783	20,884	21,477	16,211
& Santa Fe	6 mos.	432,387	20,054	452,441	399,492	70,547	63,409	6,479	87,996	82,387	21,973	10,882	175,084	365,866	316,617	80.86	79.25	40,035	46,539	45,744	38,816	34,007
Auto Train	3 mos.	–	3,935	3,935	3,139	318	358	25	299	458	30	301	1,044	2,991	2,759	76.0	87.9	235	710	233	292	(1,289)
	6 mos.	–	7,857	7,857	5,670	604	702	55	924	772	106	607	2,070	6,124	5,457	77.9	96.2	434	1,298	(80)	454	(1,842)
Baltimore & Ohio	3 mos.	138,632	5,385	144,017	127,302	17,798	17,900	1,811	19,614	17,378	2,845	2,929	53,740	103,036	93,887	71.5	73.8	9,920	31,061	24,127	100,15	6,080
	6 mos.	263,988	8,927	272,915	244,349	32,843	32,900	3,621	37,548	33,325	5,704	5,965	103,577	197,424	180,501	72.3	73.9	19,505	55,987	45,383	20,764	7,622
Bangor & Aroostook	3 mos.	3,263	196	3,459	3,602	951	972	100	1,321	1,341	465	89	1,206	3,827	3,708	110.6	102.9	341	(709)	(706)	95	474
	6 mos.	6,851	413	7,263	7,333	1,930	1,961	174	2,600	2,551	936	171	2,583	7,790	7,503	107.2	102.3	689	(1,215)	(1,090)	515	1,300
Bessemer & Lake	3 mos.	13,170	1,118	14,288	13,441	1,771	2,314	153	2,452	3,501	656	172	3,464	8,985	10,370	62.9	77.2	3,800	1,502	1,362	1,547	–
Erie	6 mos.	21,921	1,867	23,787	21,739	3,041	3,618	307	4,726	6,289	1,223	332	6,348	16,729	18,088	70.3	83.2	4,864	2,195	1,457	2,471	1,278
Boston & Maine	3 mos.	16,666	3,493	20,159	20,109	3,815	3,748	423	3,310	3,477	614	396	9,413	18,101	17,691	89.8	88.0	1,608	450	838	(2,491)	(1,687)
	6 mos.	34,012	7,003	41,015	39,245	7,529	7,467	857	6,699	6,635	1,229	756	19,348	36,747	34,715	89.6	88.5	3,217	1,051	1,375	(5,173)	(3,783)
Burlington	3 mos.	254,594	11,550	266,143	254,792	46,631	42,194	4,734	47,439	46,519	10,987	7,030	114,883	231,058	212,307	86.8	83.3	22,647	12,438	20,969	(206)	10,228
Northern	6 mos.	502,859	22,198	525,057	482,845	80,934	74,517	8,998	91,605	87,303	21,835	13,786	223,197	441,187	399,599	84.0	82.8	46,536	37,334	40,638	11,678	16,989
CPR Lines in	3 mos.	2,447	83	2,531	2,243	454	405	67	539	504	47	61	962	2,150	1,949	84.9	86.9	111	270	199	–	–
Maine	6 mos.	5,097	161	5,259	4,607	847	912	133	1,031	964	94	123	1,918	4,184	3,931	79.6	85.3	219	856	487	–	–
Central RR of	3 mos.	7,226	3,559	10,785	10,447	1,090	1,360	319	1,543	1,837	224	178	5,241	8,960	9,899	83.1	94.8	1,017	808	(417)	(536)	(1,912)
New Jersey	6 mos.	14,341	7,197	21,538	21,957	2,104	2,818	515	3,309	4,122	459	340	10,477	17,716	21,044	82.3	95.8	2,015	1,807	(1,152)	(1,370)	(5,159)
Central Vermont	3 mos.	2,300	122	2,422	2,529	472	529	(33)	307	227	16	33	1,175	2,080	1,912	85.8	75.5	234	107	419	62	188
	6 mos.	4,751	211	4,962	4,953	1,016	1,016	24	594	416	32	57	2,368	4,231	3,700	85.2	74.6	464	267	864	348	563
Chesapeake &	3 mos.	124,379	5,563	129,942	116,024	14,342	16,200	1,477	22,473	20,420	6,227	2,538	50,591	98,579	89,533	75.9	77.2	13,484	17,879	15,243	11,842	10,076
Ohio	6 mos.	232,974	9,041	242,015	230,133	26,916	30,000	3,001	43,872	40,159	12,423	4,985	96,279	188,643	174,679	77.9	75.9	25,053	28,319	33,712	17,911	19,978
Chicago & Eastern	3 mos.	11,364	143	11,507	10,642	1,959	2,393	86	1,911	1,918	454	282	3,498	8,113	8,272	70.50	77.73	1,087	2,307	1,516	2,088	489
Illinois	6 mos.	21,837	314	22,151	20,144	3,849	4,024	282	3,596	3,679	857	571	6,801	15,734	15,559	71.03	77.24	1,923	4,494	2,981	3,096	1,055
Chicago & North	3 mos.	91,613	10,628	102,242	29,660*	12,097	4,499*	(74)	16,746	4,229*	3,145	2,490	42,748	79,641	23,476*	77.9	79.1*	7,839	14,762	3,804*	4,277	387*
Western	6 mos.	181,752	21,070	202,822	29,660*	21,614	4,499*	(139)	31,839	4,229*	6,262	4,943	84,686	154,199	23,476*	76.0	79.1*	15,267	33,356	3,804*	11,624	387*
Chicago, Milwaukee	3 mos.	83,337	6,181	89,518	81,159	15,790	15,518	1,910	11,917	13,088	2,604	2,585	36,508	71,686	67,936	80.1	83.7	7,269	10,563	6,361	1,215	(1,193)
St. Paul & Pacific	6 mos.	163,812	11,899	175,711	152,495	28,521	26,431	4,434	24,323	26,363	5,234	4,990	71,625	139,148	129,422	79.2	84.9	14,396	22,167	9,835	3,463	(4,463)
Chicago, Rock Island	3 mos.	77,227	1,815	82,242	80,093	10,436	11,617	1,258	14,743	13,452	1,573	2,121	37,041	68,314	62,385	83.1	77.9	6,180	7,747	12,305	(5,015)	920
& Pacific	6 mos.	154,282	9,304	163,586	151,006	20,676	22,005	2,692	28,555	27,731	3,158	4,252	72,316	133,591	123,210	81.7	81.6	12,190	17,804	17,001	(8,270)	(4,980)
Clinchfield	3 mos.	10,469	123	10,592	11,436	1,130	1,229	85	1,797	1,891	643	291	2,887	6,483	6,686	61.0	58.5	924	3,205	3,896	–	–
	6 mos.	19,894	216	20,110	20,171	2,098	2,157	168	3,400	3,458	1,295	594	5,634	12,431	12,305	61.8	60.7	1,824	5,854	6,332	–	–
Colorado & Southern	3 mos.	7,342	232	7,575	6,869	1,225	632	38	928	1,033	475	23	3,013	5,618	4,376	74.2	63.7	581	1,376	1,912	593	1,278
	6 mos.	14,762	492	15,254	13,047	1,984	1,231	83	2,460	1,941	951	46	6,134	11,466	8,384	75.2	64.3	1,183	2,606	3,641	773	2,291
Delaware & Hudson	3 mos.	10,836	275	11,112	10,604	1,529	1,338	112	2,231	2,109	391	334	4,119	8,905	8,379	80.1	79.0	1,506	701	730	1,633	(709)
	6 mos.	21,922	522	22,444	20,734	2,682	2,635	208	4,470	4,563	783	661	8,315	17,513	17,385	78.0	83.8	2,978	1,953	325	2,139	(1,993)
Denver & Rio Grande	3 mos.	28,378	620	28,998	27,565	4,537	3,700	454	4,999	4,338	1,622	1,056	9,793	22,095	19,295	76.2	70.0	3,352	3,551	3,875	3,563	4,291
Western	6 mos.	56,047	1,152	57,199	54,035	8,144	6,438	838	9,675	8,515	3,227	2,071	19,098	42,397	37,114	74.1	68.7	7,242	7,560	8,344	7,450	8,259
Detroit & Toledo	3 mos.	2,207	169	2,376	2,127	251	194	19	363	338	115	78	698	1,547	1,420	65.1	66.8	434	394	326	258	206
Shore Line	6 mos.	4,295	286	4,581	4,130	505	441	48	726	668	231	149	1,407	3,087	2,811	67.4	68.1	781	713	641	416	348

*C&NW became employee owned on June 1, 1972. Hence, all C&NW figures with asterisk are only for the month of June.

Second Quarter Figures of Calendar Year 1973

(Dollar figures are stated in thousands: i.e., with last three digits omitted

Name of Road		Operating Revenues				Operating Expenses										Operating ratio		Railway tax accruals	Railway operating income		Net income	
						Maint. of Roadway and Structures			Maint. of Equipment													
		Freight	Other	Total 1973	Total 1972	Total 1973	Total 1972	Deprec. and Retirements	Total 1973	Total 1972	Deprec. and Retirements	Traffic	Transportation	Total 1973	Total 1972	1973	1972		1973	1972	1973	1972
Detroit, Toledo &	3 mos.	11,147	622	11,769	10,612	1,309	1,051	88	2,142	1,885	427	312	4,481	9,029	7,610	76.7	71.7	889	1,851	2,243	1,073	1,062
Ironton	6 mos.	22,604	1,184	23,788	20,803	2,550	1,997	178	4,244	3,649	859	622	8,959	17,911	15,071	75.3	72.5	1,749	4,128	4,273	2,042	2,011
Duluth, Missabe &	3 mos.	16,004	1,471	17,475	13,270	1,781	1,636	213	1,952	1,777	571	76	4,219	9,399	8,065	53.8	60.8	5,037	3,039	1,902	3,538	2,150
Iron Range	6 mos.	22,839	1,703	24,543	17,956	3,466	3,372	437	3,953	3,539	1,135	146	7,111	17,192	14,900	70.0	83.0	5,669	1,682	136	3,066	875
Duluth, Winnipeg	3 mos.	3,929	49	3,978	3,318	543	516	16	342	361	2	74	1,305	2,349	2,190	59.1	66.0	333	1,296	810	1,151	525
& Pacific	6 mos.	7,985	81	8,066	6,760	834	815	33	739	606	5	186	2,538	4,460	3,834	55.3	56.7	714	2,892	2,316	2,629	1,813
Elgin, Joliet &	3 mos.	13,745	7,769	21,514	19,225	2,260	1,917	150	2,739	2,964	530	262	7,958	15,553	14,021	72.3	72.9	3,341	2,619	2,252	1,755	1,714
Eastern	6 mos.	27,832	15,417	43,248	35,675	3,938	3,315	274	5,579	5,407	1,057	523	15,923	30,409	26,175	70.3	73.4	7,232	5,607	4,235	3,868	3,422
Erie Lackawanna.	3 mos.	66,710	7,520	74,231	66,968	9,772	7,773	786	12,115	10,851	1,856	1,440	33,419	60,350	60,402	81.3	90.2	6,163	7,714	2,279	(1,719)	(13,720)
	6 mos.	128,986	15,625	144,611	131,300	16,613	14,277	1,580	24,322	22,364	3,726	2,830	66,251	117,421	113,093	81.2	86.1	12,084	15,105	8,514	(4,284)	(16,611)
Florida East Coast	3 mos.	11,441	443	11,884	9,464	2,950	2,606	198	1,022	810	315	252	2,491	7,215	6,237	60.7	65.9	1,780	2,888	2,213	2,556	1,017
	6 mos.	23,141	817	23,958	19,164	5,630	5,446	399	1,959	1,872	638	502	4,916	14,031	12,935	58.6	67.5	3,562	6,364	4,215	4,769	2,158
Fort Worth &	3 mos.	9,096	674	9,770	6,343	1,263	951	86	743	693	109	79	4,596	7,139	4,846	73.1	76.4	551	2,080	1,131	(38)	(85)
Denver	6 mos.	17,049	1,080	18,129	12,214	2,096	1,850	130	1,462	1,506	226	149	8,498	13,077	9,570	72.1	78.4	942	4,110	1,896	231	(299)
Georgia Railroad	3 mos.	2,665	142	2,807	2,776	410	376	38	430	422	102	111	1,158	2,259	2,214	80.5	79.8	183	364	405	—	—
	6 mos.	5,026	278	5,303	5,597	780	774	67	860	828	202	230	2,282	4,451	4,277	83.9	76.4	490	490	1,009	—	—
Grand Trunk	3 mos.	27,375	1,032	28,407	24,862	3,570	2,813	242	3,951	3,796	139	497	12,839	22,692	20,105	79.9	80.9	2,280	3,434	2,602	(613)	(1,089)
Western	6 mos.	53,840	2,236	56,076	46,396	7,140	5,613	491	7,505	6,817	278	980	25,351	44,595	38,892	79.5	83.8	4,770	6,711	3,281	(1,744)	(4,646)
Green Bay &	3 mos.	2,107	107	2,214	1,901	276	344	23	294	304	51	149	777	1,673	1,640	75.55	86.25	287	254	88	158	(167)
Western	6 mos.	4,082	192	4,274	3,803	560	542	46	541	599	102	294	1,512	3,266	3,149	76.42	82.80	494	513	355	244	(72)
Illinois Central Gulf	3 mos.	124,510	9,407	133,917	124,892	18,122	19,390	1,787	22,613	22,810	4,555	3,032	50,012	102,052	97,536	76.2	78.1	13,365	18,500	16,206	11,706	7,973
	6 mos.	244,823	15,952	260,775	246,272	35,405	38,409	3,767	42,542	44,699	10,756	6,047	98,000	197,474	191,224	75.7	77.6	25,502	37,799	32,675	21,101	17,745
Illinois Terminal	3 mos.	3,188	436	3,624	3,193	514	454	6	510	452	129	113	1,399	2,819	2,450	77.8	76.7	264	541	503	185	178
	6 mos.	6,496	892	7,388	6,175	898	814	12	1,011	908	247	217	2,764	5,445	4,739	73.7	76.8	514	1,429	1,009	807	473
Kansas City Southern	3 mos.	27,717	1,765	29,482	26,822	4,310	4,011	260	4,647	4,107	1,195	969	11,223	22,544	19,094	76.5	71.2	1,521	5,417	5,547	(221)	2,296
	6 mos.	55,502	3,396	58,898	52,433	7,774	7,156	537	9,054	8,076	2,398	2,009	22,175	43,845	36,891	74.4	70.4	3,623	11,431	10,860	800	4,124
Lake Superior &	3 mos.	1,435	651	2,086	1,375	320	275	74	396	409	184	8	596	1,440	1,371	143.9	99.7	182	464	(154)	539	(37)
Ishpeming	6 mos.	1,602	1,017	2,619	1,694	566	534	146	737	812	366	16	926	2,482	2,429	94.7	143.3	350	(213)	(1,057)	(34)	(811)
Lehigh Valley	3 mos.	14,099	429	14,528	13,355	1,962	2,598	371	2,921	2,806	330	519	6,444	12,947	12,752	89.1	95.5	1,237	(244)	(492)	(2,329)	(3,097)
	6 mos.	27,827	982	28,809	23,921	3,934	4,123	692	5,875	5,301	669	965	11,007	26,115	23,235	90.6	97.1	2,512	182	(1,431)	(5,713)	(6,403)
Long Island	3 mos.	2,226	22,530	24,756	26,724	5,877	4,883	630	8,258	8,528	2,567	180	19,999	40,072	36,411	161.9	136.2	2,230	(17,546)	(11,518)	(19,965)	(13,636)
	6 mos.	3,954	38,303	42,257	51,121	9,972	9,786	1,074	14,724	16,288	3,640	334	34,921	70,058	72,022	165.8	140.9	3,959	(31,759)	24,550	(33,587)	(28,754)
Louisville &	3 mos.	119,261	3,996	123,257	114,685	15,797	14,769	1,466	23,004	22,267	7,713	2,509	47,276	94,234	88,263	76.5	77.0	10,114	18,909	18,220	6,425	7,492
Nashville.	6 mos.	234,416	7,112	241,528	225,799	32,204	30,560	2,709	44,914	45,128	15,527	4,989	93,433	186,871	176,574	77.4	78.2	18,558	36,099	33,408	10,828	12,443
Maine Central	3 mos.	7,160	159	7,319	7,037	1,565	1,564	97	1,567	1,553	294	129	2,672	6,409	6,305	87.6	89.6	598	311	195	79	194
	6 mos.	14,748	289	15,037	14,112	3,069	3,196	188	3,113	3,147	589	254	5,476	12,861	12,650	85.5	89.6	1,164	1,013	396	607	11
Missouri-Illinois	3 mos.	1,754	20	1,774	2,038	291	276	9	819	745	399	53	454	1,707	1,609	96.2	78.9	387	(320)	(150)	715	678
	6 mos.	3,632	46	3,678	3,925	485	487	17	1,561	1,496	800	110	865	3,200	3,090	87.0	78.7	826	(348)	(316)	1,498	1,349
M-K-T Lines	3 mos.	21,618	1,200	22,819	20,563	3,007	3,324	267	3,240	2,527	332	964	9,123	17,289	15,411	75.8	74.9	1,639	3,891	3,690	(911)	(364)
	6 mos.	42,685	2,119	44,804	39,877	5,447	5,775	535	6,069	5,216	652	1,939	17,657	33,066	30,029	73.8	75.3	3,234	8,504	6,906	(5,665)	(1,212)
Missouri Pacific	3 mos.	125,776	5,282	131,058	115,240	18,553	20,722	1,431	21,106	20,382	4,351	2,670	50,002	97,436	89,208	74.3	77.4	8,844	24,778	19,077	5,205	3,033
	6 mos.	243,983	10,049	254,032	221,497	35,123	35,970	3,166	41,509	38,949	8,694	5,379	97,229	189,453	168,410	74.6	76.0	17,851	46,729	38,394	10,044	7,583
Monongahela	3 mos.	1,766	15	1,781	2,214	448	481	47	256	255	20	3	470	1,222	1,302	68.6	58.8	113	446	780	(306)	18
	6 mos.	3,397	53	3,350	5,201	903	964	98	511	457	40	7	973	2,481	2,515	71.9	48.4	229	740	2,460	(708)	959
Norfolk & Western	3 mos.	204,574	8,698	213,272	204,621	26,158	24,410	2,995	37,967	35,645	13,273	4,440	76,117	155,494	144,586	72.9	70.7	19,776	37,998	40,908	21,695	(33,090)
	6 mos.	404,172	16,386	420,558	401,212	47,488	42,288	5,803	76,015	71,346	26,532	8,666	150,728	304,378	280,067	72.4	69.8	39,476	76,703	82,855	43,420	(9,201)

(continued on following page)

Second Quarter Figures of Calendar Year 1973

(Dollar figures are stated in thousands: i.e., with last three digits omitted

Name of Road		Operating Revenues				Operating Expenses						Traffic	Transportation	Total 1973	Total 1972	Operating ratio 1973	Operating ratio 1972	Railway tax accruals	Railway operating income 1973	Railway operating income 1972	Net income 1973	Net income 1972
						Maint. of Roadway and Structures			Maint. of Equipment													
		Freight	Other	Total 1973	Total 1972	Total 1973	Total 1972	Deprec. and Retirements	Total 1973	Total 1972	Deprec. and Retirements											
Norfolk Southern	3 mos.	4,121	119	4,240	3,941	951	783	85	682	618	177	139	1,502	3,613	3,243	85.2	82.3	305	321	422	(801)	(41)
	6 mos.	7,819	205	8,024	7,788	1,700	1,587	165	1,337	1,217	356	292	2,985	6,983	6,517	87.0	83.7	621	420	711	(153)	(34)
Northwestern Pacific	3 mos.	3,091	15	3,106	3,534	798	912	61	253	81	2	23	1,079	2,259	2,207	72.7	62.5	307	540	1,092	377	800
	6 mos.	6,247	35	6,282	7,139	1,796	1,800	123	537	135	4	51	2,097	4,723	4,248	75.2	59.5	705	854	2,159	320	1,421
Oregon Electric	3 mos.	1,631	70	1,702	1,745	183	238	21	47	77	75	8	786	1,056	1,104	62.1	63.3	185	460	438	138	54
	6 mos.	3,024	139	3,163	3,493	369	444	62	94	89	150	16	1,542	2,091	2,058	66.1	58.9	313	759	943	149	320
Penn Central	3 mos.	434,372	63,868	498,240	470,454	68,431	67,302	7,164	81,747	85,217	13,326	5,352	232,037	410,195	393,684	82.3	83.7	40,216	47,828	42,899	(27,855)	(59,652)
	6mos.	849,248	123,277	972,525	904,886	126,380	124,216	13,661	163,690	172,234	27,027	10,073	459,053	806,889	771,909	83.0	85.3	80,989	84,646	61,475	(83,104)	(124,828)
Penn-Reading Seashore Lines	3 mos.	2,002	375	2,377	2,230	608	501	62	344	343	29	14	1,709	2,828	2,645	119.0	118.6	215	(667)	(593)	(1,309)	(1,226)
	6 mos.	4,224	729	4,953	4,294	1,285	1,070	210	696	653	59	27	3,448	5,711	5,235	115.3	121.9	424	(1,182)	(1,302)	(2,559)	(2,607)
Pittsburgh & Lake Erie	3 mos.	10,285	842	11,126	9,972	1,917	1,487	168	4,485	4,317	1,650	199	4,182	11,626	10,685	104.5	107.2	2,033	(2,532)	(1,600)	2,563	2,147
	6 mos.	19,017	1,760	20,778	18,197	3,344	2,757	352	8,818	8,501	3,305	407	8,192	22,433	20,563	108.0	113.0	3,417	(5,072)	(4,065)	4,731	3,831
Reading	3 mos.	26,619	5,822	32,441	28,256	4,762	4,557	640	5,825	5,662	1,187	723	14,854	28,153	26,195	86.8	92.7	3,013	1,275	(613)	(2,987)	(6,164)
	6 mos.	50,376	11,738	61,932	54,140	9,107	9,086	1,223	11,802	11,302	2,383	1,457	28,989	55,375	52,091	89.4	96.2	6,081	476	(3,299)	(7,649)	(13,077)
Richmond, Fredericksburg & Potomac	3 mos.	6,820	463	7,283	6,621	863	810	103	921	792	259	127	1,849	4,201	3,602	57.7	54.4	1,927	1,556	1,586	1,732	2,037
	6 mos.	13,126	1,032	14,159	12,770	1,711	1,555	224	1,830	1,590	518	239	3,376	8,009	7,041	56.6	55.1	3,757	2,393	2,783	3,491	3,566
St. Louis-San Francisco	3 mos.	60,642	2,677	63,320	58,546	9,447	8,670	633	9,668	8,975	2,544	1,951	25,971	50,161	44,649	79.2	76.3	4,933	8,225	9,385	3,160	5,214
	6 mos.	120,535	5,173	125,709	114,404	18,632	17,505	1,444	19,472	17,996	5,069	3,867	50,463	98,648	87,524	78.5	76.5	9,763	17,297	17,866	5,051	8,268
St. Louis Southwestern	3 mos.	41,420	454	41,877	40,173	5,519	5,056	307	9,906	9,062	3,487	970	15,032	32,367	29,166	77.29	72.60	3,337	6,173	7,343	8,503	8,840
	6 mos.	81,236	962	82,197	78,143	9,685	9,313	579	19,041	17,477	6,805	1,925	29,201	61,776	56,342	75.16	72.11	6,943	13,478	13,935	18,381	17,706
Seaboard Coast Line	3 mos.	150,102	5,840	155,943	144,468	20,888	21,106	1,534	28,194	25,300	6,804	3,190	60,280	118,376	105,694	75.9	73.2	12,020	25,546	26,292	10,648	14,968
	6 mos.	298,091	10,736	308,827	283,515	43,370	41,522	3,106	55,937	49,026	13,366	6,368	116,647	234,002	206,283	75.8	72.8	23,977	50,848	52,768	22,665	28,343
Soo Line	3 mos.	40,682	1,086	41,768	34,564	7,435	5,920	369	5,430	4,670	1,072	998	14,615	29,983	25,515	71.8	73.8	4,024	7,761	5,697	3,996	2,410
	6 mos.	80,739	1,948	82,687	67,229	12,097	10,273	741	10,196	9,006	2,128	1,983	28,438	55,669	48,553	67.3	72.2	9,210	17,807	11,940	9,955	5,450
Southern	3 mos.	192,852	7,141	199,993	188,923	32,446	30,763	3,818	33,483	30,762	11,305	3,758	59,739	138,274	126,846	69.1	67.1	19,682	42,036	41,031	25,569	23,829
	6 mos.	376,375	13,675	390,049	367,449	63,382	59,676	7,527	65,111	62,611	22,411	7,364	117,557	271,266	249,553	69.5	67.9	37,636	81,147	78,434	52,667	46,029
Southern Pacific	3 mos.	294,921	7,652	302,573	292,943	37,070	38,105	3,214	57,274	53,763	15,512	4,822	119,276	235,815	219,315	77.9	74.9	25,351	41,407	49,410	24,975	30,596
	6 mos.	565,161	15,237	580,398	555,776	73,657	75,291	6,186	110,138	106,625	31,042	9,278	229,694	457,715	427,747	78.9	77.0	50,064	72,619	81,245	34,566	46,400
Texas & Pacific	3 mos.	31,448	1,047	32,535	27,494	4,840	4,309	346	5,598	5,235	1,460	1,034	1,028	25,575	22,086	78.6	80.3	2,417	4,543	3,629	3,418	2,061
	6 mos.	60,881	1,893	62,774	53,866	8,671	8,347	690	10,993	10,228	2,952	1,999	25,476	49,421	43,154	78.7	80.1	4,566	8,787	7,198	6,073	3,674
Texas Mexican	3 mos.	1,910	212	2,123	1,546	433	366	17	185	122	44	82	595	1,436	1,103	67.66	71.36	313	374	230	121	70
	6 mos.	3,444	344	3,788	2,970	810	733	33	345	295	87	159	1,144	2,743	2,284	72.41	76.92	499	545	350	161	80
Toledo, Peoria & Western	3 mos.	3,133	155	3,287	2,972	476	428	18	284	287	68	246	1,161	2,410	2,196	73.3	73.9	324	553	481	224	218
	6 mos.	5,975	275	6,250	5,805	804	741	36	518	558	135	481	2,278	4,625	4,247	74.0	73.1	599	1,025	978	369	403
Union Pacific	3 mos.	208,784	6,297	215,081	191,900	28,100	24,467	2,264	38,571	36,602	14,380	4,986	75,374	160,063	140,424	74.4	73.2	22,828	32,190	33,642	29,276	26,649
	6 mos.	405,841	12,998	418,839	371,014	54,160	47,180	4,872	75,828	72,599	28,437	9,787	148,554	312,222	276,094	74.5	74.4	44,430	62,186	60,716	56,097	50,671
Western Maryland	3 mos.	12,785	937	13,723	12,003	1,851	1,931	200	2,576	2,783	872	433	5,514	11,213	10,745	81.7	89.5	1,032	1,477	302	575	(516)
	6 mos.	24,736	1,900	26,636	24,248	3,748	3,974	406	5,307	5,613	1,750	873	10,795	22,406	21,756	84.1	89.7	2,048	2,182	980	539	(527)
Western Pacific	3 mos.	22,215	329	22,544	20,924	3,407	3,272	400	3,599	3,649	837	942	9,032	18,765	17,494	83.2	83.6	1,720	2,059	1,918	1,788	644
	6 mos.	43,228	659	43,887	41,894	6,400	6,265	736	7,176	7,304	1,678	1,890	17,555	36,595	34,595	83.4	82.6	3,419	3,873	4,167	2,432	1,820

Moving Freight

THINK SMALL (TANK CARS, THAT IS)

Think small, warns ACF's John F. McCarthy, director of industrial sales for Shippers Car Line Division. He was referring, at a recent American Petroleum Institute meeting, to the shrinking fleet of smaller tank cars (6,000- to 10,000-gallon capacity) which have often been put on short-term leases by oil companies to get through peak demand periods. These "life savers" may soon not be available. Many cars of this size are being retired under mandatory AAR car-life limits. Units of comparable capacity are not being built as replacements. Food and chemical shippers are putting many of the remaining small tank cars under long-term lease to hold down future distribution costs.

SOUTHERN LANDFILL GETS ENVIRONMENTAL OK

Late in 1974 Southern Railway expects to be moving 400 tons of waste daily from Atlanta, Ga., to a location in Georgia's Twigg County. Clearance has been given by the state's Environmental Protection Division for solid waste disposal in abandoned kaolin strip mines south of Macon. EPD said that the area's water table will not be endangered and the landfill process will serve to reclaim up to 50,000 acres of "orphan lands." Said Southern President W. Graham Claytor, Jr., "It has been our thought all along that this particular site can be safely used to dispose to solid waste. By this decision, a signal contribution has been made toward the solution of one of the nation's most serious environmental problems."

THIRD-QUARTER TRAFFIC SETS A RECORD

The estimated 208 billion revenue ton-miles produced by U.S. railroads during the third quarter of 1973 was the highest ever for a third quarter and the second highest on record. The figure was exceeded only by the 218 billion ton-miles recorded during the second quarter of 1973. Revenue ton-miles have now exceeded 200 billion for four consecutive quarters. Grain led the way to the new third-quarter mark with 442,058 revenue carloadings, an increase of 70,604 carloads (19%) over the same 1972 period.

PALLETIZING COULD RAISE RAILS' APPLE SHARE

Rail freight lends itself to palletization and could serve as an incentive to greater use of the rail mode by Northwestern apple shippers who have switched substantially to highway trailers. Success in shipping other soft fruits on pallets could open the door to apple palletizing within the next year, reports Packaging Corp. of America which supplies molded pulp apple trays, an adjunct to pallet shipment. Western railroads have published reduced rates for 60,000- and 70,000-lb shipments west of Chicago and New Orleans; pallets stacked seven-high in a car are needed to comply with these incentive rates according to apple shippers.

CLAIM COUNCIL IS BEING ORGANIZED

A new Shippers National Freight Claim Council is being launched at the annual meeting of the Shippers' Conference of Greater New York at the Traffic Club of New York on Nov. 7. There will be panel presentations of plans for shipper/carrier relations and for SNFCC's organizational structure. Among the shippers active in the fledgling organization are Union Carbide, J.C. Penney, Lever Brothers, American Home Products, and Eastern Area Military Transport Services.

FORWARDER CHOOSES SP SITE

Southern Pacific Transportation Center in Los Angeles is the site of the new freight terminal and headquarters of Coast Carloading Co., land-forwarding division of WTC Air Freight. Coast specializes in freight forwarding from California to the Pacific Northwest, Canada and Alaska, but also serves Mountain and Southwestern states. The new facility has trackage for more than 50 cars, 40 spots for loading piggyback trailers and 80 truck bays. Handling from initial pickup to dispatch in box cars or piggyback trailers is now highly mechanized; location at SP's facility minimizes time for loading, unloading and forwarding.

ICG STAYS ON TOP OF GRAIN SITUATION

Fiberglass "snap-on" covers for open-top hopper cars are enabling Illinois Central Gulf to produce a seasonal 10,000-ton unit grain train by utilizing 100-ton cars which are in coal service at other times of the year. ICG received two prototype versions after it suggested such a removable roof; 100 have been ordered so that covered hoppers can be produced quickly. When the peak of grain movement has passed, the cars can again be converted for coal service. For over two months ICG has been operating a 10,000-ton unit train of regular covered hoppers off its Iowa Division, doubling the 1973 movement of corn as compared with the comparable period of 1972. ICG has worked closely with country elevators and port terminals to assure that cars will not be delayed.

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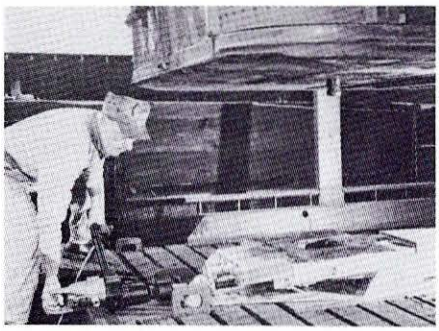
CP Rail

New Products Report



Piggyback loading tool speeds hitch anchoring and removing

An electrically driven piggyback loading tool to be used for elevating, anchoring or removing trailer hitches on flat cars has been engineered by Thor Power Tool Co. The tool is said to speed hitch anchoring or removing and to save operators from strains and jars. Two versions are available: Model EN-PB-75 with adjustable slip clutch, and Model EN-PB-76 with a circuit breaker in place of the clutch. Both models feature a long switch handle to give the operator leverage for controlling tool torque, a 1-in. male square drive, a reversible side switch handle with locking pin, and heavy-duty ball bearings.

Circle 60 on reader service card

Heavy-duty wheel chock meets OSHA requirements

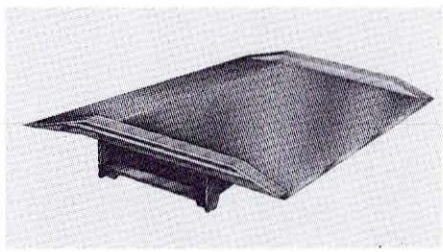
A new wheel chock from Jerke Corp. helps meet Occupational and Safety Health Act requirements for blocking highway trailers at loading docks. Called Truk-Buk, the chock features a continuous row of gripper teeth against the pavement along the entire bottom contact edges, thus offering positive insurance against slippage. Truk-Buk is formed of heavy-duty safety plate for maximum strength and durability. Hand holes in sides and convenient flanges at the back make placement and removal convenient and safe.

Circle 61 on reader service card

Loose-fill cushioning material is odorless, dustless, anti-static

A lighweight protective cushioning material called Cushion-Lok-Pak is offered by Zero-Foam Products. The material is a loose-fill, flowable material made of polystyrene in a trilobular configuration, creating an interlocking action while a container is being packed. As the odorless, dustless, anti-static, self-extinguishing material is poured into a shipping carton it envelops and cushions the item to be shipped against shock and vibration. The material is re-useable, so that ecological and economic benefits accrue. Cushion-Lok-Pak bulks to .05 lb per cubic foot and is shipped in 15-cubic-foot bags.

Circle 62 on reader service card



Custom-made aluminum railboards are lightweight, maintenance-free

Railboards will be custom engineered to any user's specifications by Rampmaster, Inc., to meet specific requirements for any dock and equipment. Building the box-type understructure to order insures even load distribution and positive locking of the board between railcar and dock. The company's railboards feature a new curb design making it possible to utilize practically the full width of the board, prevent run-offs, and to protect truck tires. The curbs are painted bright safety yellow to guide the operator. All-aluminum construction makes the railboards lightweight and maintenance-free. Welded construction gives the boards a unitized strength, there are no rivets to pop and no bolts to come loose.

Circle 63 on reader service card

Hydraulic crane helps in a variety of rerailing operations

ISCO Manufacturing Co.'s IC-75-MHC 75-ton capacity mobile hydraulic crane with 360-deg rotation can be used in a variety of rerailing operations. It is useful at yard derailments, for wheel and truck changes, and as support for other equipment at major derailments. The rugged siderail frame of heavy

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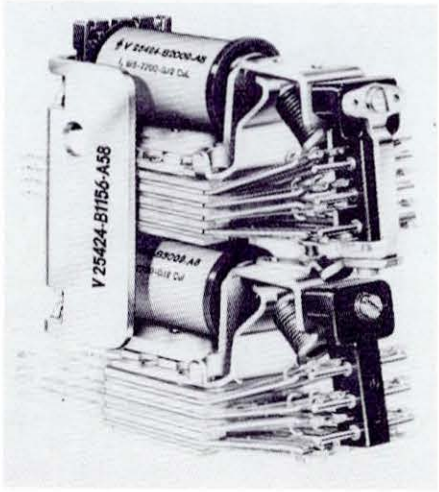
wide-flange beams is carried on a semi-elliptical leaf spring front suspension and a rubber load-cushion rear suspension. Power options include Cummins and Detroit Diesel engines with a variety of transmissions. There is an 8-ft main boom with 7½-ft extension, two 10-in. hydraulic lift cylinders and front and rear winches with capacities up to 100,000 lb. Other options include Ryd-A-Rail road-to-rail conversion units, jacks up to 100 tons, air-brake testing reservoir and 100-ton hydraulic outrigger rams.

Circle 64 on reader service card



K50 interlocking relay is now available here

Siemens Corp. is introducing its K50 interlocking relay to the North American railway signal market. The relay has been widely used in Europe. The relay's function is important when, for example, it serves as a blocking or locking relay. Two superimposed K50 relays are mounted with a common base plate. Mechanical latching is done by two support plates rigidly lined with the relay armatures. The dropped-away armature of one relay latches the picked-up armature of the other relay. K50 has a maximum of 2 by 8 contacts and is designed with solder tags for mounting in relay unit housing as used in geographical or modular circuit design. Its approximate dimensions: 1.6 in. wide, 3.7 in. high and 3.7 in. deep. Price is below $80.

Circle 65 on reader service card

NEW LITERATURE

DOCK LEVELERS. A colorful 24-page brochure from Rite-Hite Corp. features Cyclamatic mechanical dock levelers. Complete dock design recommendations, specifications and pit details are included.

Circle 70 on reader service card

CABLES. A 28-page catalog, die cut in the shape of a cable reel, illustrates and describes the 26 basic types of telephone cable produced by Phelps Dodge.

Circle 71 on reader service card

RADIOS. "Personal Portable FM Radio Equipment and Accessories" is the title of a new Motorola booklet that is a complete guide to a comprehensive line of portable communications equipment and accessories.

Circle 72 on reader service card

FIBEROPTIC SIGNS. The Vehicle Traffic Control Department of General Railway Signal Co. has issued a 6-page folder describing a line of standard and custom illuminated signs. Using the principle of fiberoptics—flexible fiber light guides—the signs are highly visible as well as durable.

Circle 73 on reader service card

BURIED CABLE. General Cable Elia Corp. has published a brochure, "Buried Cable Installation," outlining the company's capabilities as buried cable installation contractors.

Circle 74 on reader service card

CRT TERMINALS. A new 4-page 2-color short form catalog describes Ann Arbor Terminals' 15 standard series 200 crt display controllers and 69 optional configurations, plus free-standing keyboards and video monitors.

Circle 75 on reader service card

SAFETY EQUIPMENT. Multiplier Industries Corp. has issued a catalog covering products for vehicle safety, aerial bucket safety, lineman safety and work area safety.

Circle 76 on reader service card

RAILROAD RADIO. WABCO's new 4R railroad radio—with its plug-in modules, 12-channel capacity and improved solid-state reliability—is described in detail in a four-page, four-color bulletin.

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- **Communications Poles and Cross Arms**
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73-22

KOPPERS
Engineered Products

Circle 49 on coupon page 69

Market Outlook

CARLOADINGS

Loadings of revenue freight in the week ended Oct. 6 totaled 557,668 cars, according to the Association of American Railroads. This was a decrease of 13,954 cars, or 2.4%, compared with the previous week, and an increase of 8,066 cars, or 1.5%, compared with the corresponding week last year. Ton-miles generated by carloadings in the week ended Oct. 6 are estimated at 17.2 billion, a 3.6% increase above the corresponding week of 1972. (Ton miles generated by carloadings reached an all-time high of 17.4 billion during the week ended Sept. 29.)

REVENUE FREIGHT CARLOADINGS

Commodity	Oct. 6 week	Sept. 29 week	Sept. 22 week
Grain	32,246	31,998	32,752
Farm products	11,123	10,420	9,562
Metallic ores	46,878	47,742	47,370
Coal	93,319	97,093	94,661
Crushed stone, gravel & sand	32,140	32,982	33,493
Nonmetallic minerals	16,300	16,515	16,142
Grain mill products	20,279	20,549	20,783
Food and kindred products	24,194	24,959	24,755
Primary forest products	23,785	24,656	24,823
Lumber & wood products (except furniture)	16,318	18,169	17,370
Pulp, paper & allied products	23,263	24,683	23,839
Chemicals & allied products	27,932	27,424	28,490
Petroleum products	9,169	8,954	9,406
Stone, clay & glass products	22,683	23,661	23,306
Coke	9,218	8,279	8,373
Metals & products	27,007	29,096	27,539
Motor vehicles & equipment	27,925	26,643	24,573
Waste & scrap materials	16,458	17,195	16,715
Forwarder & shipper assn. traffic	11,630	11,846	11,050
All other carloads	65,229	68,356	66,082
LCL traffic	572	522	484
Total cars loaded	557,668	571,742	561,568
Cumulative total, 40 weeks	1973		1972
	20,973,206		19,928,315
Estimated revenue ton-miles (billions) 40 weeks	646.7		592.9

PIGGYBACK LOADINGS

U.S. piggyback loadings for the week ended Sept. 29 totaled 32,901 cars (11.9% above the corresponding week last year) and 57,316 trailers or containers (up 14.3% from 1972). Cumulative volume for the first 39 weeks of 1973 is 1,139,058 cars (up 16.9% from last year) and 1,971,109 trailers or containers (up 20.3% from 1972).

IN CANADA

7 days ending	Tons of Revenue Freight	Cumulative Totals
Sept. 21, 1973	5,335,840	167,390,751
Sept. 21, 1972	4,813,186	146,519,896

● *Amtrak.*—Has placed orders totalling $64 million for new passenger equipment. Budd will build 57 stainless-steel Metroliner-type passenger cars—36 coaches and 21 snack-bar coaches at a cost of $24 million with delivery to start early in 1975. Unlike existing Metroliners which are self-propelled, the new cars are designed to be hauled at speeds to 120 mph by electric or diesel locomotives which will supply power for all on-board services. General Electric has received an $8 million order for an additional 11 6,000-hp electric locomotives which are to be delivered starting in November 1974. GE is currently constructing 11 electrics of the same design for Amtrak. Electro-Motive Division will build 70 3,000-hp SDP40F diesel-electric units costing $32 million with delivery to start early in the summer of 1974. EMD has already delivered 40 such units and has a previous order for an additional 40 which will be delivered prior to the latest order.

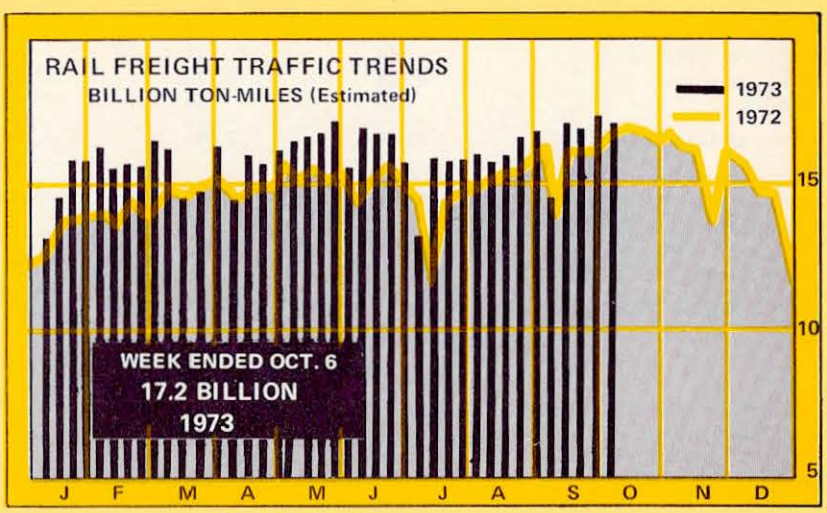
● *BART.*—Ordered 100 additional rail transit cars from Rohr Industries at a cost of $39 million. The new order brings to 450 the number of transit vehicles BART has ordered from Rohr since 1969 at a total cost exceeding $143 million.

● *Erie Lackawanna.*—Will acquire 1,000 new highway trailers at a cost of $5.8 million. Seven hundred will be acquired on an 8-year lease from Fruehauf; 300 will be leased from Trailmobile, also for 8 years, through Greyhound Leasing & Financial Corp. Deliveries are to begin later this year.

● *Louisville & Nashville.*—Ordered 731 new freight cars at a cost of about $18 million: 600 70-ton, 52½-ft box cars (300 of which will be equipped with lading-protection devices) from ACF; 100 100-ton chain-binder bulkhead flat cars from Ortner; 15 100-ton cable flat cars from Bethlehem Steel; and 16 high-roof box cars from Pullman-Standard.

● *Rock Island.*—Ordered 28 3,000-hp, six-axle diesel-electric units valued at about $9 million, for delivery before the end of

(continued)



Source: Association of American Railroads

the year. GE will build 18 U30C-XR units, EMD will build 10 SD40 units.

● *Saudi Arabia.*—Ordered three diesel-electric units from General Motors Overseas Operations.

● *Southern.*—Ordered 1,800 box cars of 70-and 100-ton capacities from Pullman-Standard at a cost of $35 million. Delivery of the 50½-ft cars will begin from the Bessemer, Ala., plant in January 1974 and extend into the second quarter. All will have nailable steel flooring and waffle sides; most will have 10-ft doors but some will have 16-ft openings. The 150 100-ton cars will be fitted with end-of-car cushioning. A portion of the order will be fitted with belt rails and others with bulkheads.

● *Spanish National Railways.*—Has signed a contract with Dimetal S.A., Spanish member of WABCO's European operations, for a complete cab signaling installation on the entire system. Involved will be 1,766 locomotives and 15,000 wayside installations on over 6,000 miles of line. The contract involves expenditure of nearly $20 million at current exchange rates.

● *Trailer Train.*—Ordered 772 new flat cars costing $17.5 million from Bethlehem Steel, Pullman-Standard and Thrall Car. Included are 536 automobile and truck tractor carriers, 36 cars for auto-frame loading and 200 specialized cars for lumber and wallboard loading. Deliveries are scheduled for next year. TTX has ordered 7,903 new cars since Jan. 1. The latest purchase will raise the TTX fleet to 69,650 cars.

● *Union Pacific.*—1974 equipment program involves expenditure of about $110 million. Orders have been placed for 40 2,000-hp GP38-2 diesel-electric units and 30 3,000-hp SD40-2 units from EMD; 30 3,000-hp U30C units from GE; 1,250 100-ton covered hopper cars from Pullman-Standard; 500 open-top hopper cars from Bethlehem Steel; 500 insulated box cars from Pacific Car & Foundry; 425 box cars from the Marine and Rail Equipment Division, FMC; 25 high-cube box cars from Thrall Car; five flat cars from Maxson; 600 box cars and 100 flat cars from company shops.

● *Freight-car orders and deliveries.*—The following report has been received from the AAR and the ARCI:

	Aug. '73	July '73	Aug. '72
DELIVERED			
Built new by carbuilders	4,215	3,466	2,822
Built new in R.R. shops	249	261	567
Built new—total	4,464	3,727	3,389
Rebuilt	76	58	312
TOTAL DELIVERED	**4,540**	**3,785**	**3,701**
ORDERED			
To be built new by carbuilders	5,461	5,282	4,975
To be built new in R.R. shops	0	300	137
To be built new—total	5,461	5,582	5,112
To be rebuilt	0	0	367
TOTAL ORDERED	**5,461**	**5,582**	**5,479**

	Sept. 1, '73	Aug. 1, '73	Sept. 1, '72
ON ORDER AND UNDELIVERED			
To be built new by carbuilders	44,408	43,189	14,493
To be built new in R.R. shops	2,659	2,908	4,257
To be built new—total	47,067	46,097	18,750
To be rebuilt	232	308	1,961
TOTAL ON ORDER	**47,299**	**46,405**	**20,711**

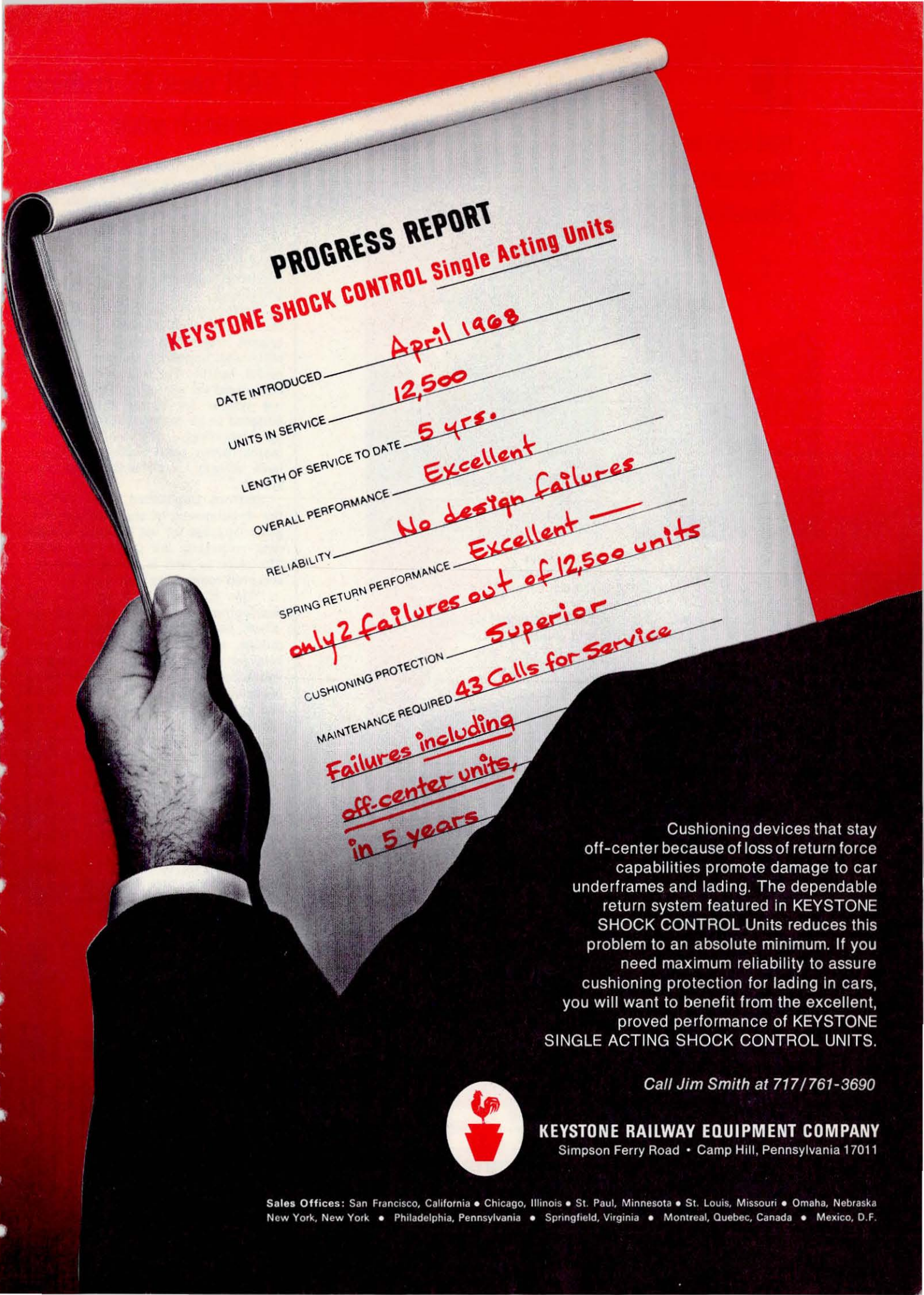
A RECORD-SETTING YEAR

As third quarter freight traffic on U.S. railroads set a record for the July–September period at 208 billion revenue ton-miles, car utilization was also at record-setting levels. Traffic was up 9.2% over the third quarter of 1972 with principal traffic groups showing the greatest growth being grain (up 19%), metals and products (up 12%), motor vehicles (up 11.6%) and metallic ores (up 7.9%). As these results were being reported, R.R. Manion, vice president, operations-maintenance, Association of American Railroads, told the Interstate Commerce Commission that during the course of setting an all-time record of 218 billion revenue ton-miles during 1973's second quarter, car utilization (in terms of net ton-miles per serviceable car day) was up fully 10% over the same 1972 period. Manion reported that this rate of increase was apparently maintained through the third quarter. Second quarter performance averaged 1,658 net ton-miles per day and 31,300 average ton-miles per carload. The performance, he said, represents a combination of heavier loading and longer hauls. He cautioned that capital spending for railroad plant and equipment continues to be limited by sub-standard earnings since rapid cost inflation is consuming the added revenues generated by the booming traffic. "Nevertheless," said Manion, "in order to provide the equipment and other facilities needed by the nation's shippers, railroads have continued to spend in excess of internally generated funds, with a resulting increase in debt at high and rising interest rates."

The revenue carloadings for the third quarters of 1973 and 1972 follow:

REVENUE FREIGHT CARLOADINGS

Commodity	Third Quarter 1973	Third Quarter 1972	Percent Increase
Grain	442,058	371,454	+19.0
Farm products	112,629	120,883	- 6.8
Metallic ores	603,927	559,759	+ 7.9
Coal	1,125,122	1,114,465	+ 1.0
Crushed stone, gravel & sand	418,728	422,361	- 0.9
Nonmetallic minerals	213,251	206,052	+ 3.5
Grain mill products	256,992	242,374	+ 6.0
Food and kindred products	292,526	308,559	- 5.2
Primary forest products	313,051	306,254	+ 2.2
Lumber & wood products (except furniture)	216,445	228,530	- 5.3
Pulp, paper & allied products	293,051	291,763	+ 0.4
Chemicals & allied products	339,966	321,224	+ 5.8
Petroleum products	120,219	118,524	+ 1.4
Stone, clay & glass products	286,786	289,729	- 0.9
Coke	109,567	84,018	+30.4
Metals & products	341,588	303,391	+12.6
Motor vehicles & equipment	278,475	249,480	+11.6
Waste & scrap materials	198,990	183,573	+ 8.4
Forwarder & shipper assn. traffic	130,544	100,879	+29.4
All other carloads	803,435	739,170	+ 8.7
LCL traffic	6,425	6,435	- 0.2
Total cars loaded	**6,903,775**	**6,568,877**	**+5.1**
Revenue ton-miles (billions)	208	190	+ 9.2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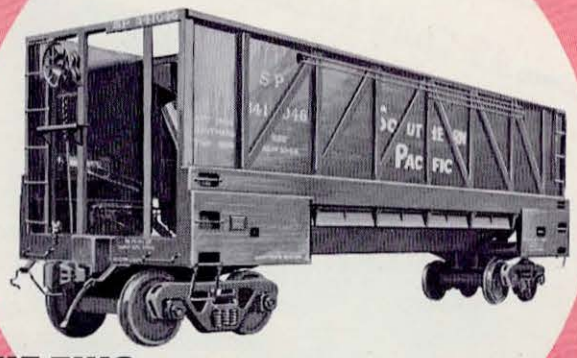

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Circle 11 on coupon page 69

AAR sees $8-million research year

(continued from page 59)

at the Commission, Stafford contended that the ICC is alert to changing times and technologies, is anxious to create a climate in which improved technologies can be allowed to take root and flourish, and will strive to maintain a regulatory climate encouraging growth and change.

Stafford outlined steps which he said the ICC has taken "to stimulate progress toward uniformity, computer compatibility and, hopefully, simpler and more useful tariffs. For example, we have authorized the use of a revised numbering system for motor carrier tariffs designed to be compatible with computer technology. . .Three of the major motor carrier tariff publishing bureaus have already implemented the new system."

Stafford emphasized "the need for the development of standardized computer language for use in transportation data collection and tariff publication. The place to start is with a universally accepted commodity code. . . .

"The ICC will have to leave the development of that code largely to others. But I ask that you keep us in the picture, and call upon us for whatever help we can provide. I expect the time will come when commodity, as well as other codes, will have to be formalized and made a part of the normal tariff filing process at the Commission and other agencies. We plan to be ready to move quickly and decisively when that day arrives to adapt our procedures and regulations to make the most of the opportunities for better service and increased efficiency made possible by the most advanced data handling techniques," Stafford said.

He went on to say: "The Commission presently uses the computer to eliminate a substantial portion of the manual processing of annual and quarterly reports, to automatically edit for omissions, errors and to compile data into regional or national totals. The computer output is in a format suitable for photocopy and publication." Stafford said that the ICC is using computers for calculating cost formulas, determining depreciation rates from input of historical data, and other analytic work that eliminates manual analysis."

The Commission is willing "to accept any new thinking that may have a contribution to make to the improvement of the transportation services which we regulate. We are looking ahead, and we are prepared to move forward in order to put new ideas and new technologies to the best possible use," Stafford said. ■

Advertisers Index

Abex Corporation 38-39
ACF Industries, Inc. . . . . 71, BC
ACI Systems Corp. 50-53
Bartlett Trailer Corp. 4
Boeing Helicopters 12B-C
Brenco, Inc. . . . . IFC
Burlington Northern 21-24
Canadian Pacific Rail 68
Canton Agency, Inc. 57
Cardwell Westinghouse Company 9
Chicago, Milwaukee, St. Paul & Pacific RR. Co. 45
Denver and Rio Grande Western RR 12
FMC Marine & Rail Equipt. Div. 76
FreightMaster 16
Fruehauf Division 12A
German Federal Railroad 57
Greenville Steel Car Co. 62-63
Kemlite Corp. 49
Keystone Railway Equipment Co. 75
"K" Line 20
Koppers Company, Inc. 72
Miner Enterprises, Inc. 42-43
Missouri Pacific Lines 31
Motorola Automotive Products, Inc. 6
North American Car Corp. 11
Pullman, Inc. 54-55
Railway Classics Christmas Cards 56
The Railway Educational Bureau 25
Raygo-Wagner . . . . . IBC
Sardello, Inc. 60
Schramm, Inc. 33
Sloan Valve Company 18
Southern Pacific Transportation Co. 40-41
Frank Speno Railroad Ballast Cleaning Co., Inc. 60
Standard Car Truck Co. 35
St. Louis-San Francisco Ry. Co. 3
The Timken Company 14-15
United States Ry Manufacturing Co. 61
United States Steel Corp. 46-47
Welded Tube Co. of America 58-59

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Viewpoint

The other side of the PC story

James Gordon Bennett, the great 19th century editor, once observed that it was the function of a newspaper not to instruct, but to startle. Certainly, all of the media, in their handling of one of the biggest business stories of the present century—the decline, and the seemingly imminent fall, of the Penn Central Transportation Co.—have enthusiastically hewed to the Bennett line.

Nearly every day, the legal and financial ramifications of Penn Central's collapse provide new tidbits for the press. Much of what has been reported is all too accurate; it has been necessary that it be reported.

But it is also necessary to remember that Penn Central is more than a faltering financial institution; it is more than an employment agency for lawyers. Penn Central is still, foremost, the common carrier of an uncommonly large part of this nation's commerce.

We thought it would be instructive to try to ascertain how PC has been performing this job, on a day to day, carload to carload basis. So we asked PC's shippers, the big, middle-sized and small corporations whose production and distribution lines function only as well as the railroad that brings in their raw materials and takes out their finished products:

"*What is Penn Central like today as a freight railroad? Has there really been a turnaround in service worth talking about?*"

Our findings are entered into the record in this issue (p. 36). We believe they are worth thoughtful study.

Hear, for a moment, not Ohio's Senator Saxbe mourning that PC's plight is evidence that "the railroads are sick, and getting sicker," but Harry W. Deck, Armstrong Cork's director of transportation, saying, "Penn Central has become a very dedicated, service conscious railroad. . .Everyone we deal with is most helpful and in practically all instances have been successful in eliminating or correcting whatever problems we have had."

Read, if you will, the Pueblo Chieftan and Star Journal complaining that "the cattle-car mentality stubbornly persists"—but read also the news as reported by George Sperry, traffic manager of National Distillers and Chemical Corp.: transit time between Indianapolis and Bridgeport has been cut in half.

And after you have wondered, along with a legion of editorial writers, just what William H. Moore has been doing all these long months since he came to Philadelphia to head up the railroad, hear Combustion Engineering's J. Robert Morton sum up those months: "Bill Moore said, 'We will give you the service if you will give us the carloads.' He has kept his promise."

IS IT REALLY WORTH THE RESCUE EFFORT?

All of this is not to say that there do not still exist enormous service, equipment and maintenance problems that bedevil Penn Central and its customers. It *is* to say that Penn Central is once again a good railroad, performing good service for its customers.

It is important to keep this in mind, because if Penn Central is not preforming a valuable service, if it has not corrected the shocking service lapses of a few years ago, then it is probably not worth the herculean efforts now being made to keep it going.

The evidence at hand suggests otherwise.

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- Converts to forks in 2 minutes.
- Has bottom pick trailer option.
- Slings attachment available.

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- 70,000 pound capacity.
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